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ALMANAC
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DAN GOLENPAUL ASSOCIATES

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TABLE OF CONTENTS

News Record of 1955 9
Headline Stories of 1955 15
Talk About Weather 22
Recipes from Famous Steamship Lines 45
Your Family Name—What Does It Mean? 59
THE WORLD TODAY (In Maps) . . 66
Top of World with Air Bases of U. S. and U.S.S.R. 66
NATO and Iron Curtain Areas . . 68
Europe and Near East—Communist and Non-Communist 70
Eurasia—Communist and Non-Communist 72
Far East and Pacific, Formosa, Hawaiian Islands 74
Middle East—Oil Fields, Pipelines, Airbases 76
India 77
South America 78
Africa 79
Canada, Alaska, Greenland . . . 80
Central America and West Indies . 81
United States 82
Hurricanes Entering Eastern Seaboard of U. S.; Long Island . . 84
U. S.—Geography and Time Zones 86
British Isles 87
France, Spain, Portugal 88
Italy, Austria, Switzerland . . . 89
THIS IS AMERICA 90
Population 90
Marriage and Divorce 102
Births 108
Mortality 114
Expectation of Life 121
Crime 125
Education 127
Geography of the U. S. 134
Headline History of Our Times . . 138
WORD SECTION 151
New Words and Meanings . . . 151
Troublesome Pronunciations . . 163
Words Frequently Confused . . 174
Words Frequently Misspelled . . 175
Forms of Address 178
Crossword Puzzle Guide 181
Parliamentary Procedure 208
Contract Bridge Systems 216
Who's Who 218
Who Was Who 240
States of the U. S. 251
Territories of the U. S. 271
Cities of the U. S. 275
Mileages Between Cities 288
Colleges and Universities 300
National Park System 314
Museums of the U. S. 317
The Rise of the U. S. 322
Principal Bills and Treaties . . . 329
Ambassadors to and from the U. S. . 339
The U. S. Armed Services 341
U. S. Postal Regulations 350
U. S. Presidential Elections . . . 354
Presidents of the U. S. 368
Congress of the U. S. 384
Government Departments and Agencies 389
U. S. Cabinet Members 393
Conferences and Treaties 399
The Declaration of Independence . . 404
Constitution of the U. S. 407
Flag History and Etiquette 422
Science 425
Religion 437
Awards 455
Aviation 469
Astronomy and Calendar 476
Nations of the World from Afghanistan to Yugoslavia 501
World Miscellaneous Information . . 667
Historical and News Events . . . 698
Firsts in America 702
Societies and Foundations 703
American Economy 705
Income Tax 735
Social Security 738
The United Nations 742
SPORTS 762
1955 Champions and Records . . 846
INDEX 871

HOW TO USE THIS BOOK FOR KNOWLEDGE AND ENTERTAINMENT

TEN YEARS AGO, WHEN THE FIRST EDITION *of the* Information Please Almanac *was published, we said that it was our purpose and hope to develop a book that would be an authoritative reference work and, at the same time, fun.*

We would like to think that we have succeeded. The test, of course, rests with your own appraisal of what our current Tenth Anniversary Edition contains.

Instead of a general foreword, we would like to help you get the most out of this book in knowledge and entertainment. With that end in mind we propose to take you on a quick tour of some of our sections.

THE EDITOR.

YOUR FAMILY NAME—WHAT DOES IT MEAN?

HERE YOU WILL FIND DEFINITIONS of about 450 of the most common *last names* in America—your own and those of your friends. Some of these are surprising. For example, Gleason means "Little man of pale or gray complexion." You might look up the names of your guests and ask them whether they know the meanings of their own names. The results should be interesting and amusing.

TALK ABOUT WEATHER

WEATHER COMMENTS USED TO BE CASUAL, but recently they have become very grim. Weather phenomena, both light and violent, are explained. Why does it rain? How do thunderstorms develop? What does a tornado look like from the inside? Is our climate *really* changing?

THE WORLD TODAY (IN MAPS—Pages 66-89)

A GROUP OF MAPS NOT to be found in any other publication shows you the world as it looks today. They dramatize and explain problems currently in the news. For example: a top-of-the-world map showing the close proximity of U. S. and Russian air bases; a Middle East map showing the oil areas where trouble is brewing; a map of our eastern shores showing where hurricanes have entered and the paths followed by some recent ones.

RECIPES OF FAMOUS STEAMSHIP LINES

CHEFS FROM THE GREAT STEAMSHIP lines of six nations have contributed their best and most characteristic recipes with instructions that any housewife can follow. Each begins with a "Captain's Dinner" and proceeds with such dishes for the gala occasion as Nut Sauce for Spaghetti, Runderlappen (meat combination) and Tarte Normande.

Continued on next page

CROSSWORD PUZZLE GUIDE

HERE WE OFFER HANDY HELP to puzzle solvers who may be stumped now and then for a two-letter word meaning "the soul, Egyptian" or a four-letter word meaning "chalcedony." Here are deities of myth and legend and all sorts of odd words that will get you over the hurdles.

WORD SECTION

YOU WILL FIND NEW WORDS which have recently come into use, such as "automation" and "egghead." If you browse through this list you will bring your vocabulary up to the minute.

You will find, also, a list of troublesome pronunciations. If you pronounce February, FEBB-roo-*ehr*-ee, don't jump on your friends because they pronounce it FEBB-a-*wehr*-ee. Both, according to our authorities, have become acceptable through usage.

You can make an amusing game of this for your family and your friends. Have the same fun with our list of frequently misspelled words.

NEWS RECORD

THIS IS A DAY-TO-DAY RECORD of the 200 outstanding news developments of 1955 plus a roundup article for each month designed to entertain and to remind you of things, serious and frivolous, that were in the public eye.

PARLIAMENTARY PROCEDURE

ALL THE RULES ARE EXPLAINED simply enough for anyone to understand. This should help you to conduct a meeting of your own organization and to understand the fuss and fury of conventions, investigating committees, etc.—including "point of order"!

SPORTS

THIS SECTION PRESENTS RECORDS AND GENERAL DATA from 1719 to 1955 on many sports. It also tells the story of how our popular sports started and developed. More than enough for junior and pop to chin about.

CONTRACT BRIDGE SYSTEMS

READY-REFERENCE GUIDE to up-to-date bidding including the Culbertson Point-Count Table, Goren Point-Count Method, Blackwood and Stayman Conventions, etc., etc. It offers a quick way to settle arguments at the bridge table!

NATIONS OF THE WORLD

FROM AFGHANISTAN TO YUGOSLAVIA. 196 pages packed with up-to-the-minute information about people, government, politics, geography, history, customs, etc. Interesting reading and invaluable reference.

If you missed the 1955 edition, you might want to catch up on the 70 recipes from world-famous restaurants, the explanation of the 1955 tax law (still on the books), or the lucid discussion of how our economy works. A few copies of the paper edition are available at $1. Write to INFORMATION PLEASE ALMANAC, 444 Madison Avenue, New York 22, N. Y.

NEWS RECORD OF 1955

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(Separate articles beginning on Page 15 give more specific information about these items: American Economy in 1955; Eisenhower's Illness; Far East; Israel; Morocco; Russia's "New Look"; Salk Vaccine; the U.N. 10th General Assembly.)

JANUARY 1955

NOBODY EVER HEARD of that little island before—just a speck of rock in the East China Sea—and nobody knew how to spell it. Yikiang? Or Yichiang? Or Ichiang? Anyway, the Chinese Communists stormed and captured it and killed all the Chinese Nationalists there. And by so doing, they threw the world into another war scare. President Eisenhower obtained approval from Congress for whatever war measures he judged necessary to protect Formosa from the Communists. . . . Maybe we were callous about war scares by this time; we didn't really get perturbed. There were other things to think about, such as the fact that the Great American Public was plunging, and almost any stock you held was beatifically up. Just like 1929. . . . But don't think we didn't have our troubles. Man buys 1955 Cadillac; man finds 19-foot car won't fit in 18-foot garage; man cuts hole in door to let new Cadillac stick out in rear. . . . And then there was that fellow Christian Dior, the Paris couturier, bothering us again. He attacked the female knee: "Ugliest spot in a woman's anatomy. . . . Should never be shown." Never in history had there been so many self-conscious and embarrassed knees.

2 Machine-gun assassins kill José A. Remón, President of Panamá.

3 U. S. bars Russian citizens from sections equaling 27% of total U. S. area.

5 Stock market briefly dives as Federal Reserve boosts margin rate to 60%.

6 Eisenhower asks unity of parties to help win world peace.

10 Eisenhower asks tariff cuts as spur to world trade.

11 Costa Rica invaded by rebels, presumably from Nicaragua.

13 New York's Chase National Bank and Bank of the Manhattan Co. to merge into 2nd largest bank.

13 Sec.-Gen. Hammarskjöld returns from Peking; says he made progress toward release of U. S. fliers.

15 Panamá ousts Pres. José Ramón Guizado for complicity in slaying of Pres. Remón on Jan. 2.

16 U. S. sells 4 F-51 Mustang fighter planes to revolt-ridden Costa Rica for $1 each.

17 $62.4-billion Eisenhower budget for fiscal 1956 cuts deficit to $2.4 billion.

17 Submarine *Nautilus* goes to sea under atomic power; 1st ship to do so.

18 Chinese Communists capture island of Yikiang north of Formosa.

21 Red China offers to let families visit imprisoned U. S. fliers.

24 Eisenhower asks Congress for broad authority to use U. S. armed forces to defend Formosa and Pescadores. (Congress votes authority Jan. 28.)

27 Financier Serge Rubinstein, convicted of draft dodging in World War II, is strangled in his luxurious New York home.

30 Russia calls on U. N. to halt U. S. "aggression" against Communist China at Formosa.

31 U. N. Security Council invites Red China to send representatives to discuss Formosa. (China refuses Feb. 3.)

DIED: 20—Robert P. T. Coffin, 62.

FEBRUARY 1955

IT GOT SO YOU had to get wet to stay in show business. You could get wet in a real wholesome way, like Esther Williams in the movie *Jupiter's Darling,* or in a sexy way, like Jane Russell in *Underwater.* In television, you could wear a diving suit, as did James Mason in Disney's *20,000 Leagues Under the Sea,* or you could ruin your best Sunday suit getting pushed into a swiming pool, as did Steve Allen on *Tonight.* Just so you made a splash. . . . Walking on two feet on dry land was moving into the Department of Lost Arts. In one week this month, the automobile industry turned out 168,160 passenger cars, which was an all-time record—topping by 2,300 the banner output of the week ending June 24, 1950. . . . Maybe we better live it up while we can. The Atomic Energy Commission told us some things we never knew about the H-bomb. It can wipe out the whole city where it hits, but that's not the half of it. The radioactive cloud it tosses into the sky will travel with the wind and strew death along a path for 140 miles. . . . Out of Moscow came a dark and perhaps ominous mystery for the world to puzzle over. Without the slightest warning, Georgi Malenkov, who had succeeded Stalin two years before, announced his resignation as Premier. "Insufficient experience," he said. And: "I see clearly my guilt . . ." Stepping into his place was Marshal Nikolai A. Bulganin. But was the real boss Nikita S. Khruschev?

1 Senate ratifies Southeast Asia collective defense pact involving 8 nations.

5 Government of Premier Mendès-France falls as French National Assembly refuses to give him vote of confidence on his North African policy.

8 Malenkov resigns as Soviet Premier; Bulganin succeeds him.

9 AFL and CIO agree to merge.

9 Senate approves (64–6) mutual defense treaty with Nationalist China.

11 Chinese Nationalist evacuation of Tachen islands completed.

15 AEC says H-bomb fall-out would imperil life over 7,000 sq. mi.

16 Dulles rejects British proposal that Quemoy and Matsu be abandoned to Chinese Reds.

17 Britain will produce H-bomb.

23 1st organizing conference of 8 Southeast Asia defense treaty nations (SEATO) meets in Bangkok.

23 France finds a Premier—Edgar Faure.

27 Chinese Reds free 2 brainwashed Americans, Malcolm Bersohn and Mrs. Walter A. Rickett.

28 38 Egyptians killed in Gaza strip by Israeli raiders.

DIED: 8—Rush D. Holt, 49; 23—Paul Claudel, 86.

MARCH 1955

Ask any raccoon and he would tell you this was a black, black spring. Raccoon tails used to sell for 25 cents a pound; now they brought nearly $5 a pound. All the fault of Walt Disney. He boomed Davy Crockett on TV, and now every kid was "King of the Wild Frontier" and had to wear a coonskin cap. "The Ballad of Davy Crockett" zoomed up to first in *Your Hit Parade,* and stuck there. Fifty manufacturing firms were feverishly busy turning out 200 Crockett items, including rifles, buckskin suits and powder horns. A Denver department store advertised a Davy Crockett bath towel, telling mothers that kids would now love to take baths. . . . The 3 biggest makers of soap (Proctor & Gamble, Lever Brothers and Colgate-Palmolive) estimated that they would spend in 1955 a total of $64 million on TV to sell soap. The National Council of Churches decided to spend $1,405,000 to sell religion over radio and TV. . . . The University of California reported that more than a billion copies of comic books are sold yearly, and the public spends $100 million for them, which is 4 times the book budget of all U. S. public libraries.

1 Merger in New York of National City Bank and First National Bank announced; will be 3rd largest in U. S.

3 Senate opens inquiry into stock-market boom.

5 Eisenhower approves 7 revisions in loyalty-security program to give Federal employees more protection.

6 U. N. commission in Jerusalem blames Israel for "brutal aggression" in Gaza raid on Feb. 28.

6 Ford Foundation gives $50 million to private colleges to help raise faculty salaries.

11 Italy completes ratification of Western European Union treaties.

13 Hoover Commission asks that most U. S. lending be reduced or ended.

15 Senate defeats Democratic-proposed $20 income-tax cut.

16 State Dept. releases secret Yalta Conference papers.

16 *Brooklyn Eagle* 114 years old, discontinued because of 47-day Newspaper Guild strike.

18 West German Parliament completes ratification of Western European Union accords for rearmament.

23 Aneurin Bevan saved from expulsion from British Labour party by Attlee.

27 France completes ratification of Western European Union accords.

29 U. N. Security Council rebukes Israel for Gaza raid on Feb. 28.

DIED: 11—Sir Alexander Fleming, 73; 21—Walter F. White, 61; 24—John W. Davis, 81; 24—Paul V. McNutt, 63; 30—Joseph Pulitzer, 70.

APRIL 1955

One of the great medical triumphs of the century was announced: the Salk vaccine was successful! Mankind was on the way to conquering one of its dread scourges—crippling, killing poliomyelitis, or infantile paralysis. (But later the joy was to turn to disappointment.) . . . We were living in boom times. The bull market on the Stock Exchange was now 305 weeks old—longest in history. Personal income throughout the nation this month went up to $295 billion, an all-time high. An article in *Variety,* headlined "Look, Ma, I'm a Corporation," told how movie stars were turning themselves into companies to bring their income taxes down—Kirk Douglas, Frank Sinatra, Henry Fonda, Joan Crawford, etc. A Minnesota electrician struck uranium in Colorado and made so much money ($10 million or so) that he hired an Episcopal rector to help him give it away. . . . Movie screens were getting bigger and bigger. Now came VistaVision with a 64-foot image to compete with CinemaScope (64½ feet) and Cinerama (67 feet). . . . In the radio-TV world, Arthur Godfrey hit the

front pages again. Without notice, he suddenly fired 6 singers and 3 staff writers. Four of the singers, the Mariners, had just finished singing "I Didn't Come to Say Hello, I Came to Say Good-bye."

1 U. S. Senate ratifies (76–2) Western European Union accords.

2 U. S. frees 76 Chinese students to go home to Red China; had been detained in U. S. since start of Korean War.

5 Churchill resigns as Prime Minister of Britain. (Succeeded Apr. 6 by Eden.)

6 4 robbers make record cash haul—$305,243.17—from New York City bank.

8 Edward J. Corsi dismissed after 90 days as special assistant to Dulles on refugee admission.

11 Adlai E. Stevenson doubts wisdom of U. S. defense of Quemoy and Matsu.

12 Salk vaccine declared successful.

15 Austria and Russia agree on peace-treaty terms.

16 Truman accuses Eisenhower Administration of "cynical political behavior."

18–23 29-nation Asian-African conference meets in Bandung, Indonesia; rejects all forms of colonialism.

20 Surprise test ("Operation Minuteman") mobilizes National Guard throughout U. S., Alaska, Hawaii and Puerto Rico.

22 Sewell Avery retains control of Montgomery Ward & Co. despite proxy fight by Louis E. Wolfson.

22 Stock margin increased to 70% to curb speculation.

23 Chou En-lai says Red China would negotiate with U. S. about Formosa.

27 U. S. bans Salk vaccine produced by Cutter Laboratories after several inoculated children develop polio.

27 Eisenhower discloses recent personal correspondence with Soviet Defense Minister Zhukov.

28 Ratification of Western European Union treaties completed.

29 Italian parliament elects left-wing Gronchi as 2nd President of Italy.

DIED: 1—Col. Robert R. McCormick, 74; 7—Theda Bara, 65; 18—Albert Einstein, 76; 20—Col. Jim Corbett, 80.

MAY 1955

CURRENT CRAZE of the American male: Do-It-Yourself. An insurance company statistician reported that 600,000 enthusiasts a year were now suffering disabling injuries doing it themselves. Carpentry and furniture making were tops, with a toll of 213,700 injured. It was also possible, however, to electrocute yourself on an aluminum ladder, set yourself on fire with spray paints or blow yourself up with wood or varnish dust. . . . Current craze of the American female: Dress material from the Orient. From India and Thailand came fabulous fabrics interwoven with gold—saris that cost a mere $600, mandarin collars, happi coats. . . . In California you were just a nobody unless you had your own swimming pool. Private water holes were being built at the rate of 25,000 a year. . . . In New York, a company put on the market a vermouth spray for those who liked their martinis dry. . . . Hollywood movie producers developed a passion for shooting their pictures in Spain. No less than 10 major American films were under way or scheduled in the vicinity of Madrid, including Robert Rossen's $4-million *Alexander the Great,* for which Dictator Franco lent hundreds of horses and Spanish cavalry troops. . . . Also in Europe there was a real, not a make-believe, historic event: 10 years after the war, West Germany regained her sovereignty and moved toward rearmament. . . . At home, a sorrowful event: Salk anti-polio inoculations were halted when several children contracted polio from vaccine into which live virus had crept.

4 Senate follows House in passing reciprocal-trade program.

4 Eisenhower promises U. S. will buy up Salk vaccine if emergency arises.

5 West Germany regains sovereignty.

5 Model community, "Doomtown," subjected to atomic blast in Nevada.

8 U. S. recommends halting all mass polio inoculations pending safety check.

9 Sewell Avery quits as Montgomery Ward chairman; succeeded by John A. Barr.

10 Western Big 3 invite Russia to heads-of-state conference.

11 Russia issues broad peace plan calling for withdrawal of troops from Germany.

13 U. S. releases polio vaccine made by Parke, Davis & Co.; enough for million shots.

15 Austrian independence treaty signed by Big 4 in Vienna.

16 Eisenhower approves voluntary polio-vaccine control plan.

17 Dulles says recent foreign developments may "mark a turning in the tide of history."

19 Eisenhower vetoes postal pay rise as too high. (Senate overrides veto May 24.)

24 Dulles says he has told West Germany that U. S. will reject neutral status for it.

25–27 Over 100 killed by tornadoes in Kansas, Oklahoma, Texas and Missouri.

26 Eden and Conservatives win 59-seat margin in Parliament.

26 Premier Bulganin and Communist-party leader Khruschev visit Yugoslavia.

27 New safety standards adopted by firms producing anti-polio vaccine.

30 Crash in Indianapolis 500-mi. auto race kills Bill Vukovich, winner in 1953 and 1954.

31 4 U. S. jet pilots freed by Red China after captivity of more than 2 years.

31 U. S. Supreme Court leaves school desegregation to regional Federal courts; sets no time limit.

DIED: 4—Georges Enesco, 73; 10—Tommy Burns, 73; 17—James Agee, 45; 17—Owen J. Roberts, 80; 18—Dr. Mary McLeod Bethune, 79.

JUNE 1955

SOMETHING NEW was added to the American way of life. Always up to now the big mass-production industries had laid off their thousands of hourly-wage workers without pay in slack seasons. In this month, however, the United Automobile Workers won from Ford and General Motors a promise to pay a modest weekly sum to men made idle. Little companies wondered: Would they be squeezed to the wall by this new development? . . . Something new was added to the international picture, but we couldn't figure out just what it meant. The Russian bear, instead of growling, all of a sudden turned sweet. Moscow made with the woo to Austria, Yugoslavia, Japan, Germany. . . . The greatest hegira in history was under way. Never had so many American tourists swarmed to Europe by air and sea—maybe half a million—and they would spend maybe half a billion American dollars, which Europeans love. And maybe some travelers would come home with a faint suspicion that they had been "took over the jumps" in Paris. . . . We Americans who did not go abroad were renting things like mad. Renting cars for summer vacations. Renting garden tools and guest towels. Renting silverware and play pens and diapers for summer cottages. Renting zircons, whatever they may be. . . . And a gambling joint in Las Vegas, Nevada, rented Noel Coward for a reported $40,000 a week.

2 Yugoslavia agrees to back Russia's foreign policies; to retain independence.

6 Ford Motor Co. grants unemployment compensation demanded by UAW.

10 U. S. Public Health Service says production flaws got live polio virus into Salk vaccine.

11 Eisenhower proposes that U. S. provide atomic power and research reactors to friendly nations at half cost.

13 GM signs with UAW for unemployment compensation payments like Ford's.

13 President Perón of Argentina assails Roman Catholic clergy for opposing him.

13 Chancellor Adenauer of West Germany visits U. S.

15 59 U. S. cities theoretically hit by H-bombs in biggest civil defense drill.

16 Perón crushes Argentine navy revolt.

20 60 nations meet in San Francisco to observe 10th anniversary of U. N.

22 Secy. of Army Robert T. Stevens resigns; Wilber M. Brucker appointed.

24 U. S. announces Soviet flyers shot down U. S. plane in Bering Strait.

25 Russia regrets downing U. S. plane; offers to pay half cost.

28 U. S. drops perjury case against Owen Lattimore.

28 Congress extends draft 4 years.

29 Winston Burdett, CBS news commentator, admits he was Communist in 1937–42 and did espionage abroad for Russia.

DIED: 11—Walter Hampden, 75; 17—John Golden, 80.

JULY 1955

A "NEW LOOK" came over the face of Russia. Suddenly the Soviet head men began to smile instead of scowl; they whispered sweet nothings to the West instead of swearing at us. For the first time in 10 years, the Big Four heads of state got together to talk things over in Geneva. They didn't settle a single one of the great issues that divide the free world and communism. But people breathed easier, anyhow. . . . Here at home a new star rose to the top of the TV rating. A year ago nobody had heard of George Gobel, but now some 30 million people watched the little man with the almost expressionless face who had tag-lines like: "You can't hardly get them kind no more" and "I'll be a dirty bird." . . . There were fireworks on the stock market when General Motors split its stock three shares for one. In a single day, the paper value of outstanding GM stock jumped $1,335,357,437. . . . And we were galloping headlong into the Buck Rogers era. The White House announced that we would build a tiny "moon" the size of a basketball and pop it out into space as an artificial satellite to circle the earth at 18,000 miles per hour.

1 12-hr. steel strike ends; men get 15¢ an hour more; price of steel up $7.50 a ton.

4 Khrushchev attends American Embassy 4th of July party in Moscow and makes speech.

5 GM to split stock 3 for 1; market booms.

6 Italy has new Premier: Antonio Segni.

10 3 American ex-soldiers of Korean war who stayed with Communists are set free in Hong Kong to come home.

11 Eisenhower cancels Dixon-Yates power contract.

11 Clark Gable marries Kay Williams.

13 Mrs. Oveta Culp Hobby resigns as Secy. of Health, Education and Welfare; Marion B. Folsom to succeed her.

16 Hungary announces it will release Cardinal Mindszenty from prison where he has served 6 years for treason.

17 22 die, 21 live as Braniff plane hits sign at Chicago airport.

17 12 Soviet farm experts begin at Des Moines 5-week tour of U. S. agricultural areas.

18 Big 4 heads-of-state conference opens in Geneva. (Conference ends July 23; only agreement is to have Foreign Ministers meet in Oct.)

25 World now knows U. S. seeks peace, says Eisenhower, reporting to nation on Geneva Big 4 conference.

27 Bulgarian fighter planes shoot down Israeli plane, killing 58.

29 U. S. to build tiny "moon" to circle earth like satellite at 18,000 mph.

29 Army arrests 3 turncoat Korean war veterans as they land at San Francisco.

DIED: 23—Cordell Hull, 83; 30—Willy Pogany, 72.

AUGUST 1955

SUCH WAS THE VOGUE for air-conditioning in this hot summer that people were catching sore throats even in churches. Eager fashion designers came up with warm and stylish little wraps that women could wear in chilly indoors and then tuck into their handbags when emerging into the tropical streets. In Dallas, Texas, a Cadillac dealer found that 97% of the cars he sold were air-conditioned. . . . Into an air-conditioned movie went a batch of Soviet Russian farmers who were supposed to be touring American farms. The movie (*The Seven Year Itch*) showed Marilyn Monroe, and the Russian farmers said every man should have a girl like that. . . . Crowding the top of the vacation-time best-seller novels was Robert Ruark's *Something of Value,* which sold 80,000 copies in the hurricane-and-bug season. And another 200,000 copies in the Book-of-the-Month Club. Mr. Ruark will gather in maybe another $300,000 in film rights. . . . In the movies, we went back to the Minoan Age and saw the story of a man some movie-goers never had heard of: man name of Ulysses. Poor devil was plagued by naiads and enchantresses. . . . Speaking of irresponsible dames, we were harassed by Diane, the Hurricane. The Weather Bureau said she was dead, but she whipped her rainy skirts through New England and caused the most devastating floods in the modern history of that region. . . . That was bad . . . But on the New York Stock Exchange was a cheerful note: First-half-year dividends for 1,500 companies topped the $3-billion mark for the first time in history.

1 U. S. confers with Red China at ambassadorial level in Geneva. China to free 11 American flyers. (Freed Aug. 4).

1 Air Force Secy. Harold E. Talbott resigns after disclosure of private business solicitations.

3 American Automobile Assn. to stop backing all auto racing after 1955 because of numerous fatalities.

4 Federal power development loses out as private utility gets Hell's Canyon dam sites on Idaho-Oregon border.

8 U. N. Atoms for Peace conference opens in Geneva.

13 Irish Republican Army band raids British military depot, capturing guns and ammunition.

15–18 House Un-American Activities Committee holds probe of Communists in New York theatrical circles; 22 actors refuse to testify; 1 names 8 as Reds.

17 U. S. promulgates new code of conduct for future American prisoners of war.

19 Floods triggered by Hurricane Diane hit Northeast states, take 150 lives.

19 Sgt. James C. Gallagher sentenced to life by court martial for murdering 2 fellow prisoners in Korea.

20–22 Over 1,000 die in nationalist riots in Algeria and Morocco.

23 First 1-day air round trip, London to New York and back; just over 14 hrs.

25 Public Health Service blames own weak safety standards for live virus in Cutter anti-polio vaccine.

26 Dulles offers security pact to Israel and Arab states if they reach peace terms.

29 U. S. presents arms plan as U. N. Disarmament Commission resumes sessions in New York.

31 Pres. Perón "resigns" in Argentina, and then retracts his resignation after mass labor demonstration.

DIED: 2—Wallace Stevens, 75; 5—Suzan Ball, 22; 5—Carmen Miranda, 41; 12—Thomas Mann, 80; 17—Fernand Léger, 74; 22—Olin Downes, 69.

SEPTEMBER 1955

NOT IN A DECADE had the nation suffered such a sudden shock as it did that Sunday morning when it learned that President Eisenhower had been stricken

by a coronary thrombosis and was under an oxygen tent in Denver. Uncountable millions of prayers were offered for the popular President. Day by day we followed every detail of his progress toward recovery: Tuesday, a slice of steak; Thursday, no more oxygen tent; Friday, he signed two official documents. . . . By an odd coincidence, we were following at the same time the newly published memoirs of a man who had been pitched into the White House upon the death of Franklin D. Roosevelt ten years ago. No man to procrastinate, Harry S. Truman set a record for early publication of Presidential recollections. And he probably set a pecuniary record, too, for his "take" was reported at $600,000. . . . Speaking of dough, Marine Corps Capt. Richard McCutchen popped into the national limelight by being the first to try for and win the top jackpot on the CBS television show *The $64,000 Question.*

4 Egypt and Israel accept U. N. truce in Gaza Strip after border clashes that have killed over 60 since Aug. 22.

6 Ford Foundation gives $20 million for college scholarship program.

7 British-Turkish-Greek conference on Cyprus fails in London.

10 Red China agrees to free 41 captive American civilians.

13 West Germany and Russia at Moscow conference agree to establish diplomatic relations; Russia verbally promises to free captive Germans.

14 International Longshoremen's Assn. ends 8-day $10-million dock strike.

17 Russia returns Porkkala military base near Helsinki to Finland.

19 Argentine revolt ousts Pres. Juan D. Perón.

20 Russia grants sovereignty to puppet East Germany.

20 U. N. General Assembly opens; votes down seat for Red China.

23 Maj. Gen. Eduardo Lonardi becomes provisional President of Argenitina.

24 Eisenhower suffers "moderate" coronary thrombosis at 2:45 A.M. in Denver; hospitalized at 2:30 P.M.

25 Leo Durocher resigns as manager of New York Giants; Bill Rigney, Minneapolis club manager, succeeds him.

26 Stock values off $13 billion as market dives.

27 Egypt announces it will buy arms from Soviets; U. S. and Britain protest to Russia.

30 Eisenhower signs first 2 papers after illness.

DIED: 19—Carl Milles, 80; 22—Samuel H. Kress, 92; 30—James Dean, 24.

OCTOBER 1955

A ROYAL ROMANCE held us in suspense: Would the Princess marry the Commoner? Would Margaret, the lively and comely kid sister of Queen Elizabeth II, marry Group Capt. Peter Townsend? He was a fighter pilot hero in World War II—but the wife he divorced was still alive. Would Meg (her headline name) defy the dictate of the Church of England? Or would she snuff out her love and turn him down for the sake of remaining a Princess? On the last day of the month, the Princess gave her answer: duty won, love lost . . . In the U. S. we had another, more metallic romance. Those beautiful new 1956 model automobiles were parading themselves like hussies, clothed only in a million words of press agents' purple prose. Powerful brutes, they were. Hot nicknames they had: "Strato-Streak," "Blue-Flame," "Firedome." Two hundred or even three hundred horses could not haul you along the highways faster. (Back in the Middle Ages of 1930, your car had only some 70 horsepower, old timer.) And now, in 1955, you could revel in the additional luxury of a seat safety belt designed to keep your head from smashing into the windshield if your powerful brute stopped too quick . . . Progress was rampant all over. In Los Angeles, they opened the glassiest, classiest jail in the world. Cells had no iron bars, but 3 miles of unsmashable glass partitions. Drunk tank had kindly rubber floors.

1 France recalls U.N. delegation in protest at Algerian situation being put on General Assembly agenda.

2 Juan D. Perón, Argentina's overthrown President, flies into exile in Paraguay.

3 AEC reveals "Project Sherwood"—to harness hydrogen-bomb power for peaceful uses.

5 Chancellor Adenauer and Premier Faure join to urge Saar to vote for Europeanization.

6 United Air Lines DC-4 air coach hits mountain in Wyoming, killing all 66; worst U. S. civil aviation crash.

9 Hitler's death confirmed by valet, Heinz Linge, who helped burn the body.

9 French National Assembly backs Premier Faure's Morocco reforms.

10 Eisenhower wheeled out to hospital sun porch first time.

11 Iran drops neutrality and joins pro-West Baghdad alliance.

12 American Legion urges U. S. to quit UNESCO.

13 Pan American Airways orders 45 American-built jet airliners to fly at 575 mph.

15 France forms 4-man regency council in Morocco.

16 Floods again hit 6 Northeastern states.

causing 44 deaths. Southern Connecticut worst sufferer.

19 Defense Dept. releases 107-page documentary report on Russia's entry into war.

20 Sen. Herbert H. Lehman (D, N. Y.) announces he is for Adlai E. Stevenson for Presidential nomination.

20 Dr. Hugo Theorell, of Sweden, wins 1955 Nobel prize in medicine for enzyme discoveries.

23 Saar rejects Europeanization by 67.7% in plebiscite.

23 South Viêt-Nam ends rule of former Emperor Bao Dai and makes Premier Ngo Dinh Diem President. He proclaims republic (Oct. 26).

25 Eisenhower poses for photographs first time since illness.

25 Air Force reports: no such thing as flying saucers.

26 GM reports $913-million net income in first 9 months; greater than record full year of 1950.

27 Big 4 Foreign Ministers' conference opens in Geneva. West offers Russia security treaty.

27 Halldor Kiljan Laxness, Iceland novelist, wins 1955 Nobel prize for literature.

30 Mrs. William Woodward, Jr., kills husband. Says "she thought he was a prowler."

31 Elected to Hall of Fame: Wilbur Wright, Gen. "Stonewall" Jackson, George Westinghouse.

31 Princess Margaret announces she will not marry Group Capt. Peter Townsend.

DIED: 3—Julius Ochs Adler, 62; 12—Bernarr Macfadden, 87; 18—José Ortega y Gasset, 72; 19—John Hodiak, 41; 27—Clark C. Griffith, 85.

NOVEMBER 1955

2 Ben-Gurion offers to meet Arab chiefs in order to settle crisis.

2 Nobel prize for chemistry: Dr. Vincent du Vigneaud; for physics, Dr. Willis E. Lamb and Dr. Polykarp Kusch.

3 Nobel Peace prize awarded to U.N. Refugee Emergency Fund (director: Dr. G. J. van Heuven Goedhart).

5 Mohammed ben Youssef, pro-nationalist, replaces Mohammed ben Arafa as Sultan of Morocco.

DIED: 1—Dale Carnegie, 67; 4—Cy Young, 83; 6—Maurice Utrillo, 71.

HEADLINE STORIES OF 1955

EISENHOWER'S ILLNESS

AT 2:45 A.M., Saturday, Sept. 24, 1955 (Mountain Standard Time), President Eisenhower was stricken by a coronary thrombosis (a blood clot in an artery supplying the heart) while on vacation in Denver at the home of his mother-in-law, Mrs. John S. Doud. His personal physician, Maj. Gen. Howard McC. Snyder, administered a sedative which permitted the President to sleep the rest of the night.

At 8:15 A.M., the White House assistant press secretary, Murray Snyder, announced that the President had suffered a digestive upset. The nature of his ailment had not at that time been confirmed, but a subsequent electrocardiogram did confirm it. Early in the afternoon, the President was removed to Fitzsimons Army Hospital and placed in an oxygen tent. At 7:30 P.M., Mrs. Eisenhower moved to a hospital room across from that of her husband.

Two heart specialists flew to Denver: Dr. Paul Dudley White, of Boston, and Col. Thomas W. Mattingly, of Walter Reed Army Hospital in Washington. On Monday, Sept. 26, before returning to Boston, Dr. White held a news conference at which he explained the nature of the President's ailment and the pattern of treatment, which involved complete mental and physical rest for the first 2 critical weeks, in which complications were most likely to occur. Dr. White said it might be possible for Eisenhower to recover so completely that he could run for a second term, but the physician later added that he himself would not want to do so.

James C. Hagerty, White House press secretary, flew to Denver. He requested Attorney General Herbert Brownell to give an opinion as to the possibility of delegating certain Presidential powers if necessary. The Constitution is unclear on this point.

The question of delegating powers was held in abeyance as unnecessary because of Eisenhower's satisfactory progress toward recovery. Sherman Adams, the Assistant to the President, flew to Denver and took charge of the temporary White House. Vice President Nixon presided at meetings in Washington of the Cabinet and the National Security Council. On the

evening of Friday, Sept. 30, President Eisenhower signed two routine documents, thereby performing his first official act since his illness.

After the President was stricken, the American Institute of Public Opinion, directed by George Gallup, conducted a poll among Republicans, asking which of 13 possible contenders they would favor for the 1956 Republican nomination in the event Eisenhower decided not to run again. Gallup announced on Oct. 9 that the top 4 favorites were Vice President Richard M. Nixon, 28%; Chief Justice Earl Warren, 24%; Thomas E. Dewey, 10%; Harold E. Stassen, 10%. The others in the Gallup poll list were Secretary of State John Foster Dulles, United Nations Delegate Henry Cabot Lodge, Jr., Secretary of the Treasury George M. Humphrey, Senator William F. Knowland, Senator Everett Dirksen, Senator Joseph McCarthy, Governor George Craig, Governor Christian Herter and Governor Goodwin Knight.

RUSSIA'S "NEW LOOK"

On Feb. 8, 1955, Georgi M. Malenkov announced his resignation as Premier of the Soviet Union, a post he had held since Joseph Stalin died 2 years earlier. He attributed his resignation to "insufficient experience" and to "my guilt and responsibility for the unsatisfactory state of affairs that has arisen in agriculture." Marshall Nikolai A. Bulganin became Premier. As time went on, it became evident that Nikita S. Khrushchev, First Secretary of the Communist party, was a power in Soviet affairs.

In subsequent months, tactical changes developed in Soviet foreign policy and gave rise to alterations in the international scene.

AUSTRIA: At the close of World War II, the U. S., Britain and Russia had agreed to regard Austria not as a defeated enemy but as a victim of Hitler's aggression. Temporarily, however, Austria would be divided into 4 zones and occupied by the Big 4 (including France). Over the next decade, diplomats of the Big 4 held scores of meetings for the purpose of drawing up an Austrian treaty to end the occupation and restore Austria's complete independence. But Russia found one pretext or another to balk agreement and keep its troops in Austria. Therefore, the Western Allies kept their troops there, too.

In March 1955, Russia suddenly invited Austrian Chancellor Julius Raab to confer in Moscow. He did so in April, and on April 15 a joint Russian-Austrian communiqué announced agreement on a treaty to end the occupation. After studying the terms, the Western Allies approved, and the Austrian treaty was signed in Vienna on May 15, 1955.

The principal terms were these:

Russia was to return Austrian oil fields; Austria was to deliver Russia crude oil. Russia was to return to Austria its Danube Shipping Co. at a price to be agreed upon. By way of reparations, Russia was to accept Austrian goods instead of $150 million in cash previously demanded. Austria was to refrain from joining any military alliance or allowing any foreign military bases on its territory. The Big 4 were to withdraw all occupation troops within 90 days of treaty ratification. Ratification was completed July 27, 1955.

GENEVA SUMMIT CONFERENCE: In the first postwar decade, there had been no meeting of the heads of state of the great powers. The last one was at Potsdam, Germany, in July 1945.

On May 11, 1953, Britain's Prime Minister Churchill proposed a conference "on the highest level" to reduce the danger of war. President Eisenhower declined; he said Russia must first show evidences of good faith—for example, signing a truce in Korea (which was done on July 27, 1953) or agreeing to an Austrian treaty. The President thought the West also should first strengthen its position by granting independence to West Germany and including it in NATO. This was accomplished by the Western European Union accords which were signed on Oct. 23, 1954, in Paris. France completed its ratification on Mar. 27, 1955, and ratification was entirely completed by the Dutch Senate on Apr. 28, 1955. West Germany officially regained sovereignty on May 5, 1955.

With an Austrian treaty in sight, the U. S., Britain and France proposed on May 10, 1955, a meeting of the Big 4 heads of state. Four days later Russia accepted.

The Big 4 summit conference opened in Geneva on July 18, 1955, and lasted 6 days. Participants were President Eisenhower, Prime Minister Anthony Eden (Churchill having resigned Apr. 5), Premier Edgar Faure of France and Premier Bulganin of Russia. They were accompanied by their Foreign Ministers and advisers, including, in the case of Russia, Khrushchev.

Following were the chief topics discussed:

1. Unification of East and West Germany. The Western Allies reiterated their insistence that the first step should be free, supervised elections in both Germanys. Russia objected to the fact that

West Germany belonged to NATO and said the time was not ripe for unification.

2. European security. The Western Allies were willing to give Russia security guarantees against a revival of German military aggressiveness, but not until the two Germanys were united. Russia insisted that NATO must go out of existence as a precondition of an all-European security pact.

3. Armaments. President Eisenhower brought up an entirely new proposal. He said the first step should be a warning system to make impossible a Pearl Harbor type of surprise attack. He offered to exchange with Russia complete military blueprints showing location and strength of each country's armed forces; and to allow each country to make aerial reconnaissance of the other's military installations.

4. The Iron Curtain. The West urged that there be more interchange of ideas, information and personal travel between East and West.

The Geneva conference agreed to turn over the first two topics to their Foreign Ministers to explore further. Oct. 27 was the time set for the Foreign Ministers to meet in Geneva. The third topic was turned over to a 5-power subcommittee of the U. N. Disarmament Commission. On the subcommittee were the Big 4 plus Canada.

The fourth topic—lifting the Iron Curtain—began to bear fruit informally after the summit conference. A delegation of Russian farm experts toured the U. S. farm regions in the summer, and a group of American farmers made a similar tour in Russia. Soviet visas were granted to tourists from Western Europe, to visiting U. S. legislators, and to news correspondents in increasing numbers.

The disarmament subcommittee met Aug. 29 at the U. N. headquarters in New York, and long drawn-out arguments followed.

YUGOSLAVIA: The first (and so far the only) satellite country to break away from Moscow's rule was Yugoslavia in 1948. The relations between the two countries became so hostile that Marshal Tito, although still proclaiming loyalty to communism, became friendly to the West and accepted U. S. aid.

On May 29, 1955, Premier Bulganin and Nikita S. Khrushchev arrived in Belgrade on a pilgrimage unprecedented in the history of Communist-ruled Russia. The Russian-Yugoslav quarrel was patched up, and it was agreed to "normalize" relations. The Soviet leaders agreed that Communist states need not necessarily follow the party line laid down by Moscow. It was further agreed that trade relations between Yugoslavia and Russia would be fostered. Russia wanted strategic minerals from Yugoslavia, and Yugoslavia wanted from Russia wheat and financial help to build up industries. Tito promised the Western world that he would not return to Moscow's apron strings.

WEST GERMANY: In June 1955, Soviet Russia invited Chancellor Konrad Adenauer of West Germany to visit Moscow. Adenauer went there in September, and on the 13th he agreed to the establishment of diplomatic relations with Russia. Russia promised orally to release 9,626 Germans whom they still hold on the accusation that they were war criminals in World War II. The West German government estimated that at least 50,000 Germans were still held captive in Russia.

Immediately after the visit of the West Germans, Soviet Russia entertained East German officials and granted "complete sovereignty" to that Communist puppet state. This emphasized Russia's view that Germany would continue to be divided into two states indefinitely.

THE SALK VACCINE

A VACCINE against poliomyelitis (infantile paralysis) was tested by its developer, Dr. Jonas E. Salk, on human beings first in 1952. In 1954, the greatest mass test in medical history was undertaken. Vaccine injections were given to 422,000 children in 44 states, and the $7.5-million cost was borne by the National Foundation for Infantile Paralysis.

The University of Michigan set up an evaluation center to judge the results. On Apr. 12, 1955, the chief evaluator, Dr. Thomas Francis, Jr., announced in Ann Arbor that the Salk vaccine had proved to be "safe, effective and potent" as a preventative of polio. It appeared that one of mankind's dread scourges was on the way out.

A few hours after the Michigan report, the U. S. Public Health Service approved a license to distribute the vaccine, and the National Foundation for Infantile Paralysis set into motion its plans for inoculating without charge some 9 million school children in the second and third grades.

On April 27, the Federal government banned all vaccine made by the Cutter Laboratories in Berkeley, Calif., after 6 children inoculated with Salk anti-polio vaccine had developed the disease. On May 6, the government halted distribution of all new batches of vaccine pending further

study of its safety. By that time, 44 cases of polio had occurred among the 4 million children who received first inoculations of the Salk vaccine.

The Public Health Service assigned a team of scientists to try to find out what had gone wrong. On Aug. 25, the Public Health Service reported that live polio virus was present in 6 lots of the Cutter vaccine. The Public Health Service blamed "fundamental weaknesses" in its own safety testing procedures. These testing methods were replaced by new procedures which were said to provide "adequate safeguards."

The government approved and released batches of vaccine slowly during the summer. By Oct. 1, enough vaccine was available to give second inoculations to three-fourths of the 16,903,000 children in the 5-to-9 age group. The mass immunization programs that had been suspended or curtailed during the summer were now resumed with the reopening of schools. The plan called for a third and final shot 7 months after the second.

On Oct. 1, Marion B. Folsom, Secretary of Health, Education and Welfare (succeeding Mrs. Oveta Culp Hobby, who resigned) announced that the incidence of polio among 7 million children thus far vaccinated—most of them with only one shot—was running 25% to 50% below the rate of nonvaccinated children in the same age group.

MOROCCO

Two of France's possessions in North Africa are protectorates: Tunisia and Morocco. The third, Algeria, is considered under the French Constitution an integral part of France with representation in the National Assembly.

On July 31, 1954, Premier Mendès-France proclaimed internal autonomy for Tunisia. Thereafter, native unrest grew in Morocco and Algeria and expressed itself in terrorist raids by the native nationalists. In Aug. 1955, an estimated 1,000 lives were lost in Morocco in clashes involving the natives and French troops and police.

Premier Edgar Faure strove for a compromise with the Moroccan nationalists. The first step was to remove from the throne the pro-French Sultan, Sidi Mohammed ben Moulay Arafa, who was highly unpopular with the nationalists. This was accomplished on Oct. 1, 1955. The Sultan went into retirement in Tangier. The next step contemplated by Faure was the formation of a Regency Council of 4, including a representative of the native nationalists. The plan was for this council to set up a widely representative native government acceptable to the moderate nationalists. Then France would grant home-rule powers to the new Moroccan government comparable to those granted to Tunisia.

Carrying out the plan was exceedingly difficult because Premier Faure was caught between two fires. He believed in placating the native nationalists. But the French who lived in Morocco believed in suppressing the nationalists by force. This view was upheld by Rightists in the French National Assembly, including several members of Faure's Cabinet. Thus Faure risked further riots and bloodshed in Morocco if he didn't placate the nationalists, and risked the overthrow of his government if he did.

The native unrest in Algeria had such world-wide repercussions that it is dealt with in the article on the Tenth General Assembly of the United Nations on page 21.

FAR EAST

There were 4 issues that created tension between the U. S. and Communist China in 1955: (1) Formosa, (2) Indo-China, (3) Application by Red China for U. N. membership and (4) Release of Americans held captive in China.

1. FORMOSA: In Dec. 1954, the U. S. had signed a mutual security treaty with President Chiang Kai-shek's government on Formosa, which we still recognized as the government of China. The Senate ratified the treaty on Feb. 9, 1955. Chiang's goal was to attack the mainland of China and conquer the Communists. The treaty, however, put a restraint upon him. It said that "use of force will be a matter of joint agreement."

Communist China asserted that it would seize Formosa, which it claimed as part of China. In Jan. 1955, Red China stormed and seized the island of Yikiangshan in the East China Sea north of Formosa. The Nationalist Chinese then withdrew, on United States advice, from the nearby Tachen Islands, which guarded the northern sea approach to Formosa.

On Jan. 28, Congress granted President Eisenhower the authority to take "such measures as he judges to be required or appropriate in assuring the defense of Formosa and the Pescadores." The Pescadores lie some 30 miles off the coast of Formosa in the Strait of Formosa, which is approximately 100 miles wide and which

separates the Communist mainland from Chiang Kai-shek's island.

Attention then was focused on two groups of small islands only a few miles off the mainland coast which were held by the Nationalists and strongly garrisoned. They were the Quemoys, just outside the port of Amoy, and the Matsus, just outside Foochow. Both were in artillery range of the mainland and were subject to sporadic bombardment by the Communists. Debate as to whether the U. S. should or should not help the Nationalists defend Quemoy and Matsu in the event of Communist assault flared across the nation. President Eisenhower refrained from saying what his intentions were.

On Jan. 31, the U. N. Security Council invited Red China to send a representative to discuss the danger of war over Formosa and the possibility of a ceasefire. Premier Chou En-lai refused to do so. His position was that Formosa was "an inalienable part of China's territory."

Tension over Quemoy and Matsu still was high when an unprecedented international conference opened in Bandung, Indonesia, on April 18. Top government officials from 29 Asian and African nations, including Red China and Communist North Viêt-Nam, assembled. Instead of winning the nonwhite peoples to his side at Bandung, Premier Chou En-lai found himself under pressure from neutralist nations such as India, Burma and Indonesia to keep the peace.

No immediate negotiations followed, but thereafter the shooting died down in the Formosa Strait and a sort of unofficial truce prevailed.

2. **INDO-CHINA:** The Geneva truce of July 21, 1954, split the Indo-Chinese state of Viêt-Nam into 2 parts—Communist-controlled North Viêt-Nam and free South Viêt-Nam. The truce terms stipulated that a free election be held throughout the country in the spring of 1956 to unite the 2 parts, and that negotiations to arrange the election be held by the two governments in the spring of 1955. Premier Diem of South Viêt-Nam refused to enter into negotiations. He feared that the Communists would contrive to win a country-wide election.

Meanwhile, the Communist seizure of North Viêt-Nam coupled with the build-up of Red military strength there, had spurred non-Communist nations in that area to sign, in Sept. 1954, a Southeast Asia collective defense treaty. It was called SEATO (Southeast Asia Treaty Organization), after the manner of NATO. Members were Pakistan, Thailand, the Philippines, Australia, New Zealand, the U. S., Great Britain and France.

On Feb. 23, 1955, the first organizing conference of SEATO opened in Bangkok, Thailand, which was chosen as the permanent headquarters. Thailand and the Philippines urged that SEATO acquire its own armed forces like NATO. The U. S. declined, asserting that mobile American forces in various parts of the Far East provided more adequate defense. Secretary Dulles said we had 400 naval vessels in the Far East and 650,000 men under arms and 30 squadrons of jet planes.

3. **UNITED NATIONS MEMBERSHIP:** At the insistence of the U. S., China continued to be represented in the U. N. by President Chiang Kai-shek's Nationalist government on Formosa. This was a sore point with Communist China, which repeatedly demanded admission. The most recent rejection of Red China's bid came on Sept. 20, 1955, at the opening of the U. N. General Assembly session. In addition to the Soviet bloc of nations, the following supported China's bid: India, Burma, Indonesia, Norway, Denmark, Sweden, and Yugoslavia. The U. S. resolution to postpone consideration of the matter won by 42 to 12, with 6 abstentions.

4. **RELEASE OF AMERICAN CAPTIVES:** On Dec. 30, 1954, Dag Hammarskjöld, Secretary-General of the U. N., took off for Peking in an effort to persuade Communist China to release 15 American flyers held captive since the Korean war. Eleven of them had been sentenced to prison as spies. The only immediate result of his visit was an offer by China to let the flyers' relatives in the U. S. visit the men in China. No relatives did, because the State Department frowned on it.

As tension eased in the spring, China released on May 31, 1955, the 4 flyers who had not been sentenced to prison.

On Aug. 1, 1955, an ambassadorial conference between Red China and the U. S. opened in Geneva, Switzerland. The U. S. was represented by U. Alexis Johnson, Ambassador to Czechoslovakia, and China by Wang Ping-nan, Ambassador to Poland. On the opening day China announced that it would free the remaining 11 American flyers in captivity. They reached Hong Kong on Aug. 4.

The topic of the conference then became the repatriation of American civilians held by Red China. The second agenda topic was listed as facilitating "further discussions and settlements of certain other practical matters now at issue between both sides."

On Sept. 10, the 2 Ambassadors in Geneva reached agreement on freeing 41 American civilians held in Red China. The U. S. reaffirmed its willingness to let any Chinese in this country return to China if he wished.

THE AMERICAN ECONOMY IN 1955

THERE WAS NO doubt that the impressive recovery of the American economy from the recession of 1954 was headline news during 1955. Beginning in the spring, the economic engine took on more power, and by the fall a boom was in progress that was at record high levels. The gross national product—the nation's total output of goods and services—was estimated at $392 billion, and was at least $32 billion above 1954. Manufacturing production, with 1947–49 as 100, stood at 142 in 1955, as compared with 127 in 1954 and 113 in 1950; major household durables turned out were 45% above the low of 1954. New capital spending in plant and equipment was expected to reach $30 billion for the year; personal disposable income—leading to more consumer spending—was at least 30% higher than in 1950 and 6% higher than in 1954. Consumer spending was at an annual rate of $256 billion for 1955.

Unemployment was very low—in the neighborhood of 2.2 million, with an employed force of 65 million. Home construction and automobile production—those important indicators of business prosperity—were turning in impressive performances. The number of new homes started in 1955 would be about 1.3 million. It was expected that 1955 would see 8 million new passenger cars manufactured; of these, 7.4 million would be sold—nearly 2 million more than in 1954. Inventories were once again at manageable proportions.

The hand of government was evident in all this, but it was only lightly felt. Government used now inflationary now deflationary devices in an effort to encourage the boom's expansion but at the same time to prevent it from getting out of hand. It raised the money rate, put some checks on home mortgage credit, and fixed higher margin requirements for stock purchases. These were deflationary measures. It increased defense expenditures—to $34.5 billion for fiscal year 1956—and allowed fast write-offs for tax purposes in some industries (freight-car and commercial-plane purchases and oil production, among others). These were inflationary devices. One of their consequences was an anticipated deficit of $2.2 billion in the Federal budget, despite Administration savings.

An economy moving at such high speeds must show instabilities. The ups and downs of the stock market will affect business confidence; so will the continued expansion of installment credit, the decline in farmer income, and rises in wages above productivity rates. Efforts to introduce rigidities—mergers, sticky wholesale prices, and high fixed costs—will cause concern.

Despite the boom, such factors were at work in 1955. At the end of September, the stock market dropped sharply on the news of President Eisenhower's illness and the commonly accepted assumption that he would not run in 1956. For business insisted upon believing that only Republican-party fiscal and monetary policies would be favorable to it. Consumer credit—inflationary in nature—stood at about $33 billion in 1955, of which installment credit represented $25 billion. This latter was 28% greater in the first 7 months of 1955 than in the same period of 1954.

Agriculture was definitely faring poorly. The decline in net farm income, which had set in in 1951, was continuing, and in 1955 was 30% off the earlier year. At the same time, with the drop in farm prices (while farm costs were going up), the farmer's share of the food dollar was dwindling. In 1946, the farmer's share of the retail food dollar was 52% and marketing costs took 48%; in 1955, his share was 40% and marketing costs were 60%. Government purchases of farm surpluses brought no relief, despite the large losses taken by government through such operations. For fiscal 1955, the loss on price-support operations came to $800 million, as compared with the realized losses of $1 billion for the 18 years 1936–53. Farmers were going to press for a return to the mandatory 90% of parity-price supports (the Administration installed flexible supports in 1953) and other forms of direct cash relief. All this would help improve farmer purchasing power—and introduce inflationary pressures.

Labor did well during 1955. Wage settlements were generous during the year, and there was no marked increase in the number and duration of strikes. The most important strike was in steel in July. Organized labor was beginning to talk of a "guaranteed annual wage" as its outstanding demand upon the economy. It moved a step in this direction with the agreement signed with the Ford Motor Company in June (a modified form of this was also written with General Motors), under which the company consented to supplement state unemployment insurance benefits for laid-off workers. Total maximum benefits received were to be 65% of the average take-home pay for a total period of 26 weeks in any one year.

This was a gain for labor. On the other side of the ledger, labor pointed to a rise in wholesale prices (to offset better wages), bad unemployment situations in many local areas and uneven distribution of consumer income. With the projected merger of the AFL and CIO during the year (under the name AFL-CIO), and therefore the lessening of jurisdictional disputes and

raids, labor undoubtedly was going to press for the "guaranteed annual wage," higher real income and a shorter work-week.

All these were pressures and led to uncertainties. There was no doubt, however, that 1955 was a banner year for the American businessman, worker and consumer.

U. N. TENTH GENERAL ASSEMBLY

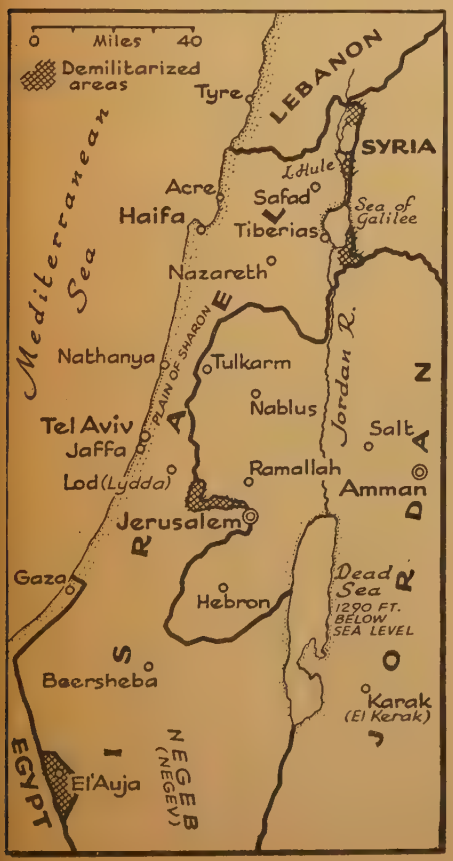
THE TENTH United Nations General Assembly opened in New York on Sept. 20, 1955. Eleven days later, France walked out of the session and called home its delegation.

The Asian-African bloc of nations in the U. N. demanded that the Assembly discuss the native unrest in Algeria, which under the French Constitution is an integral part of France—not a protectorate. The Steering Committee voted to recommend that this item not be included in the agenda. On Sept. 30, the Assembly overruled its Steering Committee, which it rarely does, and voted to put Algeria on the agenda.

France asserted that this was a violation of the U. N. Charter, which forbids interference in any country's internal affairs. The Asian-African nations asserted that the guerrilla fighting constantly going on against native nationalists in Algeria was a threat to world peace, and that the idea of Algeria's being part of the French homeland was a "judicial fiction."

The Assembly vote to put Algeria on its agenda was 28 to 27, with 5 abstentions. In addition to the Asian-African bloc, the Soviet bloc and 5 Latin-American nations voted for debate. The U. S. and all the NATO countries except Greece and Iceland (the latter abstaining) voted against.

The French Cabinet decided on Oct. 2 that France no longer would be represented in the General Assembly, at least for this session. However, France would continue to be represented in the Security Council and in the Disarmament Comm.



COMMUNIST ARMS THREATEN ISRAEL

AFTER THE BIG FOUR heads of state conferred in Geneva in July 1955, the world spoke of the "Spirit of Geneva," meaning a new amiability between Russia and the West. Two months later, in September, a new and ominous maneuver by the Soviet Union was disclosed: Soviet weapons of war were to be supplied in substantial quantities to Egypt.

Egypt and Israel still were technically at war, although an uneasy truce had existed since 1949. In 1950, the U. S., Great Britain and France had jointly proclaimed their desire to see the status quo maintained in Palestine, with no aggression on the part of either Israel or the surrounding Arab nations. The Western Big Three agreed to limit the sale of arms to Israel and the Arab states so that a balance would be preserved.

The 1955 sale of arms to Egypt—ostensibly made by Czechoslovakia—threatened to strengthen Egypt to the point where it could attack Israel. In the Israeli parliament, voices were raised in favor of preventive war; that is, an attack by Israel on Egypt before it gained supremacy.

The West was concerned lest an Israeli-Egyptian war might set off World War III. When the Big Four Foreign Ministers' conference met in Geneva on Oct. 27, 1955, both the U. S. and Great Britain made strong representations to Russia to the effect that the sale of arms to Egypt was contrary to the "Spirit of Geneva."

Unofficial reports in the West at that time indicated that Egypt was receiving 200 Soviet jet fighter planes, 100 Russian tanks, several submarines and a quantity of artillery.

TALK ABOUT WEATHER

by

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Formerly Chief of the Weather Service, U. S. Army Air Corps

We wish to express our thanks to AMERICAN AIRLINES for making Mr. Merewether available. Without their cooperation this section would not have been possible.

We think that the Congresses of all Administrations, present and past, deserve strong criticism for appropriating so little for the Weather Bureau and other agencies dealing with problems of weather. Weather has become a terrifying thing—not just something to talk about. Approximate cost of weather services per capita in our country is 18 cents a year, compared with 50 cents for Canada and 47 cents for Russia. Let us correct this outrageous economy and at least try to give our people more protection.

DAN GOLENPAUL, Editor

THE WEATHER OF 1955

THE YEAR 1955 was one of violent weather. It started off innocuously enough with a relatively mild winter. Although the southern half of the country was cool and disagreeable, the northern half experienced a mild and open winter, except in the ski resort areas of New England. On the other hand, Florida resorts, and those in the Southwest too, experienced a long spell of cold and windy weather during January.

Spring weather, with record heat in the South, was a harbinger of the hot summer ahead. Early in March, the South experienced a heat wave that continued for 3 full weeks, almost without a break. Jackson, Miss., set a record of 82° on Mar. 2., and Savannah, Ga., recorded 90° on the 16th. While all this was going on down South, very cold air was pouring out of Canada into the northern tier of states; and Helena, Mont., recorded 30° below zero on the 25th for the coldest March reading there in 75 years.

With such contrasts as this in air masses setting the stage for violent storms and tornadoes, a squall line moved through the area from Toledo to New York City in the spring, doing over a million dollars' worth of damage in each of the states—Indiana, Ohio and Pennsylvania.

A far more serious tornado situation developed on the evening of May 25 in the area over north-central Oklahoma. By midnight at least 15 tornadoes had gone on a rampage over a 200-square-mile area, killing over 100 people, hospitalizing 300, wiping communities completely out of existence and causing damage in the millions of dollars. This was a classic tornado situation that met all the atmospheric requirements of the meteorologists—a warm, muggy air mass below; very dry air in a jetlike flow aloft; cold air to the north.* The conditions were recognized and the warnings issued. Shortly after 9:00 P.M., the first major tornado struck near Tonkawa, Okla., 80 miles north of Oklahoma City. Blackwell was partly destroyed and 20 persons killed. A whole family of tornadoes was now in progress, forming, dying, and reforming, hop-skipping and jumping across the countryside as they roared up tornado alley on into the night, maiming, killing and destroying. Bramen was spared; Oxford was bypassed; but just before midnight, the full fury of the tornado swooped down upon the little community of Udall and its 600 sleeping inhabitants, and erased it from the face of the earth. Every home, public building and place of business was demolished or damaged beyond repair. In the twinkling of an eye, 80 lives were snuffed out, and over 200 were seriously injured.

The 3 weeks of unseasonably warm weather in the South had advanced the growing season almost a month. Fruit trees were in full bloom and early crops well above the ground. But Nature has a

* For explanation see page 24.

way of balancing up her weather scores. And so, on March 22, a great mass of frigid air came pouring out of Canada to set the stage for the severest March freeze in 60 years. By the 26th, temperatures had dropped below zero as far south as Omaha; at Shreveport, La., the mercury plunged from 79° on the afternoon of the 25th to freezing by 1:30 A.M. the following morning; at Jacksonville, Fla., it dropped from 86° on the afternoon of the 26th to 1° above freezing early the next morning. All along the Gulf Coast from northeast Texas to northwest Florida, temperatures dropped below freezing; Mobile, Ala., recorded 26°, a new low this late in the season. This was the most destructive freeze in the Southeast since 1894. In Georgia alone, the crop losses reached $50 million. The peach crop was almost a total loss and all other fruits were badly damaged. The tung nut crop and pecans were 100% destroyed, and tender vegetables suffered severely.

Meanwhile drought in the Southwest caused severe and frequent dust storms. Some of these storms carried dust to heights of over 20,000 feet as the great brown pall moved eastward into the lower Mississippi Valley area. By the middle of May, some rains had come to the Dust Bowl to ease the situation slightly, and the drought in the Southeast was definitely broken; Mobile, Ala., reported a 13.36-inch rainfall in 6 hours. In the Dust Bowl, however, rainfall was less than 50% of normal. In southwestern Colorado, only 2 inches had fallen since Aug. 1954. (This long continued drought has been one of the major meteorological catastrophies of the mid-century.) But this bleak outlook, a situation that had been worsening since 1950, was changed almost miraculously for the better by frequent rains during the latter part of May and June.

The summer of 1955 was one not soon to be forgotten. Heat records went by the boards all over the country. New York City had the hottest, muggiest, most miserable summer on record. Chicago established a new record of 45 days of 90° or higher temperatures. A heat wave at the end of August and the beginning of September drove temperatures in Los Angeles to a new high of 110°, causing a steep increase in the death rate.

But of all the violent rampages of our American weather, the ones most likely to be remembered will be the hurricanes* of August and September—Connie, Diane and Ione. Coming after Carol, Edna and Hazel of 1954, the attacks of these Furies with girlish names seems well-nigh incredible.

Connie, the third hurricane of the season, was first discovered on Aug. 3 some 1,200 miles east of Puerto Rico. Moving slowly westward it recurved to the northwest 100 miles north of Puerto Rico and approached the coast of North Carolina, moving straight north during the night of Aug. 11. The center passed inland near Morehead City and Beaufort after midnight causing great destruction and flooding everywhere in its path. During the 12th, the storm continued its northward movement up Chesapeake Bay, where it sank the pleasure schooner *Levin J. Marvel*, taking a toll of 14 lives. South of Harrisburg, Pa., the storm swerved to the northwest and passed out over Erie, Pennsylvania, and Lake Erie into Canada. Connie was a very destructive storm, killing 49 and causing $10,000,000 worth of property damage in North Carolina alone. It brought an end to the drought which had been plaguing the northeastern part of the country. In New York City, 12.35 inches of rain fell.

No sooner had Connie passed away than Diane reared her ugly head. Following a somewhat similar path, she too elected to enter the U. S. via North Carolina. Moving in over Cape Fear and Wilmington on Aug. 17, she also took a northerly path, further inland than Connie. Moving with diminished speed and intensity, she was more or less ignored for a while, but she packed a hidden wallop that quickly woke the Northeast in terror. Turning sharply eastward from a point over western Maryland on the 18th, the center passed offshore just south of Long Island, though with winds far below hurricane velocity. But, sucking in vast quantities of moisture-laden air from over the Atlantic, she dumped torrential rains in seemingly never ending cloudbursts all over eastern Pennsylvania, New York, New Jersey, Massachusetts, Connecticut and Rhode Island. The worst floods in history ensued in some areas. Nearly 200 persons died as a result of the floods. Damage was estimated between $1 billion and $2 billion. Nearly 1,000 homes were destroyed and over 5,000 suffered major damage.

A short respite occurred before Ione appeared. Advertised as the largest and most dangerous storm in years, she, like her predecessors Connie and Diane, also selected North Carolina as the gateway to the U. S. At almost the precise point where Connie entered, Ione roared into Morehead City and Beaufort with winds up to 120 miles per hour on Sept. 19. The storm lost much of its fury after passing inland, recurved to the east, south of Norfolk, and passed out to sea, later to batter Newfoundland.

No story of 1955 hurricanes should close without drawing attention to the terrible fate of Tampico, Mex., a seaport of 100,000

* See "Definitions" page 24.

souls on the Gulf of Mexico. Today it lies in ruins after an unmerciful battering by 3 hurricanes in quick succession—Gladys on Sept. 5, Hilda on Sept. 19 and Janet on Sept. 29. Torrential rains caused the Panuco River to overflow, flooding the greater part of the city. The death toll is estimated at several hundred, with the damage in the hundreds of millions. Other Mexican cities and towns in the area were severely damaged also.

The people of southern New England and adjacent New York, New Jersey and Pennsylvania had no sooner staggered to their feet out of the floods of Diane than nature dealt them another overwhelming blow. This time it was no hurricane, but an "extra-tropical cyclone"* that developed off Cape Hatteras on Thursday afternoon, Oct. 13. Moving slowly northward and increasing in intensity, it brought high winds and heavy rains into the area for 3 successive days. By week end, all the streams and rivers were again on the rampage. Floods were seemingly everywhere. Rail and automobile service between New York and Boston were cut off, many cities and towns were without power, thousands were again made homeless, damage ran over a hundred million, and 48 people lost their lives.

* See "Definitions," below.

SEVERE STORMS

EVERY YEAR, severe storms take their toll of lives and property somewhere in the U. S. Of all the storms in nature, the tornado and the hurricane stand out above all the rest in their might and their destructiveness. Both release enormous quantities of energy in the atmosphere, enough to make atomic and hydrogen bombs seem puny by comparison. But, except for this similarity, they are vastly different from each other.

TORNADOES*

The *tornado* is the most powerful of all, the most spectacular, violent and destructive. It is born on land, is so small that it can be seen in its entirety by a single observer, and lives for only a few hours at most, roaring across country at 30 to 40 miles per hour, with the sound of a gigantic freight train, only to die in a moment—as suddenly as it was born. Winds of 500 miles an hour sometimes occur, as evidenced by the remarkable effects, such as driving a straw deep into a two-by-four. No actual wind records, of course, are available, since nothing but destruction is left in the paths of these twisters—paths which average about 400 yards in width and 10 to 15 miles in length.

Although they have occurred in every state in the Union, they are mainly Midwestern storms, two-thirds of which occur in the spring and early summer, March through June. Oklahoma, Kansas and Iowa are the most vulnerable states, and "cyclone cellars"† there are not at all uncommon.

What causes these terrible storms? Basically the same sort of unstable conditions in the atmosphere as those that cause thunderstorms,‡ only the instability must be even greater. Consequently, tornadoes occur only where thunderstorms have already begun popping off. Tornadoes are, in fact, parasites of thunderstorms. The instability necessary to set off the storm is brought about by the meeting of dry cold air and warm moist air masses. If the contrast between these two air masses is average, ordinary thunderstorms develop; if the contrast is sufficiently large, severe thunderstorms with strong gusty surface winds and hail occur. Only when the contrast is exceptionally marked will the tornadoes also occur. In such cases, very hot humid air moving in from off the Gulf of Mexico is overrun by cold dry air aloft, resulting in complete overturning of a considerable depth of the lower layers of the atmosphere.

Since tornadoes are so frightfully destructive, few persons indeed have looked up into the interior of a tornado vortex

* For table "Groups of Tornadoes that Caused Outstanding Damage," see page 26. † Tornadoes are called cyclones in some parts of the country. ‡ For explanation, see page 35.

Definitions

Cyclone: A circular or nearly circular area of low atmospheric pressure around which the winds blow counterclockwise in the Northern Hemisphere, clockwise in the Southern.

Tropical cyclone: A cyclonic storm of great intensity, that originates in the tropics over the oceans, moving westward, and sometimes recurving northward in the Northern Hemisphere and southward in the Southern Hemisphere.

Extra-tropical cyclone: A cyclonic storm of middle and higher latitudes, characterized by an extensive low-pressure area.

Hurricane: A tropical cyclone originating in the Gulf of Mexico, Caribbean Sea or tropical areas of the North Atlantic Ocean.

Tornado: A rotary storm, one of the most violent types of storms known, of small diameter, which travels across the country and leaves great devastation along a narrow path.

and lived to tell the tale. But late in the afternoon of Easter Sunday in March 1913, Milton Taber, Editor of the *Topeka* (Kans.) *Daily Capital*, had that privilege and he relates his experience in the following words: "The tornado formed where a group of students, including myself, were enjoying a picnic just east of Lincoln, Nebraska, and whirled furiously over our heads. We looked up into what appeared to be an enormous hollow cylinder, bright inside with lightning flashes, but black as blackest night all around. The noise was like ten million bees, plus a roar that beggars description."*

Fifteen years later, another Kansan, Mr. Will Keller, had this story to tell:

"On the afternoon of June 22, 1928, between three and four o'clock, I noticed an umbrella-shaped cloud in the west and southwest and from its appearance suspected there was a tornado in it. The air had that peculiar oppressiveness which nearly always precedes the coming of a tornado.

"I saw at once my suspicions were correct. Hanging from the greenish black base of the cloud were three tornadoes. One was perilously near and apparently headed directly for my place . . . The surrounding country is level and there was nothing to obscure the sight.

"There was little or no rain falling from the cloud. Two of the tornadoes were some distance away and looked like great ropes dangling from the parent cloud, but the one nearest was shaped more like a funnel, with ragged clouds surrounding it. It appeared larger than the others and occupied the central position, with great cumulus clouds over it.

"Steadily the cloud came on, the end gradually rising above the ground . . . At last the great shaggy end of the funnel hung directly overhead. Everything was still as death. There was a strong, gassy odor, and it seemed as though I could not breathe. There was a screaming, hissing sound coming directly from the end of the funnel. I looked up, and to my astonishment I saw right into the heart of the tornado. There was a circular opening in the center of the funnel, about fifty to one hundred feet in diameter and extending straight upward for a distance of at least half a mile, as best I could judge under the circumstances. The walls of this opening were rotating clouds and the whole was brilliantly lighted with constant flashes of lightning, which zigzagged from side to side. Had it not been for the lightning, I could not have seen the opening, or any distance into it.

"Around the rim of the great vortex small tornadoes were constantly forming and breaking away. These looked like tails as they writhed their way around the funnel. It was these that made the hissing sound. I noticed the rotation of the great whirl was anticlockwise, but some of the small twisters rotated clockwise. The opening was entirely hollow, except for something I could not exactly make out but suppose it was a detached wind cloud. This thing kept moving up and down. The tornado was not traveling at a great speed. I had plenty of time to get a good view of the whole thing, inside and out."*

Continuous lightning is a feature of these storms. When conditions are right, whole families of tornadoes appear fairly close together, roaring usually from southwest to northeast, hop-skipping and jumping across the landscape like gigantic elephant trunks of utter devastation, hitting here, lifting off the ground and missing there, only to come back to earth again a short distance on to wantonly smash and kill again.

Since our population has increased and spread out, a year seldom goes by without loss of life and property caused by these storms.† From a monetary and national-defense point of view, the potential hazard to costly airplanes, hangars and equipment is brought into sharp focus by the calamities that struck Will Rogers Field and Tinker Field, near Oklahoma City, in 1948. On March 20, a tornado swept across both airports, doing $10¼-million damage to airplanes and buildings. Five days later, another tornado struck Tinker Field, still staggering under the previous punch, and piled up $6 million more damage.

Until then, no one had ever seriously attempted to investigate, study and forecast the occurrence of these fearful twisters. The Air Force called in two young weathermen, Fawbush and Miller, gave them 9 or 10 corporal and sergeant assistants, and told them to get to work on these storms, find out what makes them tick, and forecast their occurrence, so they'd not get caught like that again. A remarkable job with little financial outlay has been done, and forecasting tornadoes is now a routine job. The U. S. Weather Bureau also has now set up a unit in Kansas City for forecasting severe weather.

Snowden D. Flora of the U. S. Weather Bureau, in his excellent book, *Tornadoes of the United States*, tells some stories of the freakish effects of these storms caused by the extremely high winds and explosive effect of the sudden reduction in pressure as the vortex passes over. Straws and grass

* Reprinted from *Tornadoes of the United States*, by S. D. Flora. Copyright 1954, by University of Oklahoma Press. Used by permission. † See table page 26.

Groups of Tornadoes That Caused Outstanding Damage

Source: Data for 1884–1953, except Sept. 1, 1952, reprinted from *Tornadoes of the United States* by S. D. Flora. Copyright 1954, by University of Oklahoma Press. Used by permission.

Date	Tornadoes in group	Deaths	Property losses	States in which storms occurred
1884, Feb. 19.....	60	800	*	Mississippi, Alabama, North and South Carolina, Tennessee, Kentucky, Indiana
1917, May 26–27.....	*	249	$ 5,555,000	Illinois, Indiana, Arkansas, Kentucky, Tennessee, Alabama, Mississippi
1920, Apr. 20.....	6	220	3,525,000	Mississippi, Alabama, Tennessee
1924, Apr. 29–30.....	22	115	4,372,300	Oklahoma, Arkansas, Alabama, Georgia, Louisiana, North and South Carolina, Virginia
1924, June 28.....	4	96	13,050,000	Ohio and Pennsylvania
1925, Mar. 18.....	8	792	17,872,000	Missouri, Illinois, Indiana, Kentucky, Tennessee, Alabama
1927, May 8–9.....	36	227	7,877,000	Texas, Louisiana, Missouri, Nebraska, Indiana, Michigan
1932, Mar. 21.....	27	321	5,514,000	Alabama, Mississippi, Georgia, Tennessee
1936, Apr. 5–6.....	22	498	21,800,000	Arkansas, Alabama, Tennessee, Georgia, South Carolina
1944, June 23.....	4	153	5,160,000	Pennsylvania, West Virginia, Maryland
1947, Apr. 9–10.....	8	167	10,030,750	Texas, Oklahoma, Kansas
1952, Mar. 21–22.....	31	343	15,327,100	Arkansas, Tennessee, Missouri, Mississippi, Alabama, Kentucky
1952, Sept. 1.....			38 B-36's	Texas (Fort Worth)
1953, June 7–9.....	12	234	93,230,840	Michigan, Ohio, and New England states.
1954, Mar. 13.....	4	8	9,000,000	Georgia. Heavy damage at Lawson Air Base and Ft. Benning.
1955, Mar. 11.....	5	0	920,000	Indiana, Ohio
1955, May 25.....	13	102	11,747,500	Oklahoma and Kansas. Completely destroyed Udall, Kans., and part of Blackwell, Okla.

* Not definitely known; believed to be large.

blades driven deep into weathered wood and tree bark are common sights. Timbers are often found driven into buildings, trees, animals and even iron plates on a bridge.

The plucking of hens' feathers by these storms is not uncommon. In one instance near Topeka, a man idly kicked over a box while walking back across the path of a storm that had just passed. Out jumped a hen completely naked, running for dear life like Bashful Bessie.

HURRICANES*

At the other end of the scale of storms is the *hurricane.* The name hurricane comes from the Carib Indian word *huracan,* which means "big wind." Surface winds in a tropical storm must attain a minimum velocity of 73 miles per hour before being officially designated a hurricane; gales begin at 32 miles per hour.

These storms develop over large bodies of water, never over land. They originate near but not directly on the Equator over waters of the North Atlantic Ocean, Caribbean Sea and Gulf of Mexico, when their surface temperatures are warmer than 81°F. Many of them originate and develop near the Cape Verde Islands off the African Coast. And since they are embedded in the general westward flow of the atmosphere in the equatorial regions, they move westward toward the Caribbean and Florida Coast until recurvature to the north takes place. The movement might be likened to swirling eddies in a brook that are carried, still swirling, downstream in the main current.

Similar storms which develop in the Pacific Ocean adjacent to Mexico and Central America are also called hurricanes but in other parts of the Pacific they are known as typhoons. And in the Indian Ocean they are termed cyclones. One of the most terrible storms that ever occurred was a typhoon that struck the coast of Indo-China at Haifong in 1881, taking the lives of over 300,000 people. The worst such disaster in the U. S. was the Galveston hurricane of 1900 that drowned 6,000.

Hot humid air is the source of energy in hurricanes. Since the equatorial regions receive more heat from the sun than is carried away by the air or water during the summer season, these waters continue to warm up, with the result that late summer and early fall provide the most nearly ideal conditions for their development. Four-fifths of all hurricanes occur during August, September and October, with September the month of highest frequency. One-third of all hurricanes occur in September. However, they have occurred in every month of the year except February, March and April.

When water evaporates into the air, it absorbs energy in the form of heat. As the warm moist air rises, this evaporated water condenses out as clouds and rain

* For table "Devastating North Atlantic Hurricanes," see page 28. Maps on pages 84 and 85 show points at which hurricanes have entered the U. S. between Brownsville, Tex. and Maine.

Tropical Storms and Hurricanes, 1887-1954

	Jan.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
No. of tropical storms	1	9	27	32	98	176	128	32	3	506
No. of tropical storms which reached hurricane intensity	1	1	11	15	61	109	53	8	1	260

and gives up the heat energy to the surrounding air. Since the air is now warmer and lighter, it continues to rise, sucking in more warm moist air at the surface to continue the supply of energy and drive the storm. Thus, the storm becomes an atmospheric engine or pump sucking in warm moist air at the surface, lifting it and condensing out the water as rain and throwing out the dried air at the top somewhere around 35,000 to 40,000 feet. Just what the mechanism is that gets this series of events started is not known at present, although several theories have been suggested.

Hurricanes in the equatorial regions drift westward with the general atmospheric flow at about 10 to 12 miles per hour, while the winds circulating counterclockwise around the center or calm "eye" of the storm may reach velocities of 150 miles per hour or higher. The movement might be likened to a spinning top moving slowly across the floor. Whether and when these storms will recurve to the north is not easy to foretell, but when they do they are caught up in the prevailing flow of air from west to east in the middle latitudes and move with it to the north or northeast. Since the winds rotate counterclockwise around the center, a full-blown hurricane moving northward up the coast will have the strongest winds on its right or easterly quadrant. For here the forward speed of movement is added to the speed of the winds around the center. So, east of the center the zone of hurricane winds may extend over a width of 100 miles or more, while west of the center it covers a band of only about 25 miles.

Consequently, the situation for maximum destructive effect in a coastal area is for the center to pass, not directly over the area, but several miles to the west, and for this event to coincide with the occurrence of high tide. Thus is brought about the combined effect of the tidal rise itself with the tidal wave or surge of the hurricane as the waters are driven inland by the most violent winds in the storm.

Storms moving up the east coast present a difficult problem to the forecaster. To do a satisfactory job, he must forecast both the direction and speed of movement. A few degrees one way or the other in the path of the storm northward from the Cape Hatteras, N. C., area may determine whether the coastal areas are ripped by the violent winds of the hurricane or merely experience a good nor'easter. The northward movement tends to increase fairly rapidly once the storm arrives in the Cape Hatteras area, and the famous storm of 1938 attained a forward speed of 56 miles per hour by the time it reached the coast of southern New England.

Hurricanes through the New York City-New England area are nothing new, since the earliest was recorded in 1635.

It is true that in the last 18 years 9 hurricanes have passed through or close enough to affect the New York City-New England area, compared with only 2 in the previous 22 years. The big question is whether this represents a trend. Unfortunately we do not have the answer. There is not at present any conclusive evidence that our weather patterns have changed to such an extent that hurricanes along the northeast coast during the past two decades will be repeated during the next two.

During World War II, the practice of using girls' names became widespread among Air Force and Navy meteorologists. It was evident that this practice in written as well as in spoken communications was shorter, quicker and less confusing than the older, more cumbersome latitude-longitude identification methods. These advantages were especially important in exchanging detailed storm information between hundreds of widely scattered stations, airports, coastal bases and ships at sea, especially when two or more tropical storms occurred at the same time. In such cases, one might be moving slowly westward in the Gulf of Mexico while the other speeded rapidly northward along the Atlantic Coast. Confusion could easily occur if each were not given a distinguishing name.

Ever since the war, the use of weather reconnaissance aircraft of the Air Force and Navy as "hurricane hunters" to locate and reconnoiter these storms has become standard procedure. Thus the airplane has become an important new weather tool in improving the hurricane warning service. Another very important piece of weather equipment is now being brought into greater use in tracking these storms. It is radar—both ground and airborne. In fact, the powerful new ground station installed

Devastating North Atlantic Hurricanes of the 20th Century

The following is a selected list of North Atlantic hurricanes based on casualties, damage and general public interest. Facts about each storm are taken from Weather Bureau records, although in some cases only estimates of wind speed are available. Data given in this list pertain only to U. S. land areas except where indicated otherwise.

Date	Areas hardest hit	Land stations with highest wind speed	Deaths (U. S. only)	Est. damage (millions)	Remarks
1900, Sept. 8.....	Galveston, Tex.	Galveston, Tex. (120* mph)	6,000	$ 20	Damage due to both winds and storm wave. Galveston Is. inundated.
1909, Sept. 10–12.....	La.; Miss.	New Orleans, La. (68 mph)	350	5	Winds 50–75 mi. W of New Orleans, where deaths occurred, were much stronger than 68 mph.
1915, Aug. 5–24.....	East Tex.; La.	Galveston, Tex. (120 mph)	275	50	Water 5–6 ft. deep in Galveston business district. 90% of homes demolished. Warnings issued well ahead of time.
1915, Sept. 22–Oct. 2..	Mid-Gulf Coast	Burrwood, La. (140 mph)	275	13	Many casualties due to persons insisting on staying in low-lying areas despite warnings.
1916, June 29–July 10 .	Miss. to Fla.; N. C.	Mobile, Ala. (107 mph)	4	3	Altapass, N. C., had 22.22 in. of rain within 24 hrs.
1919, Sept. 2–14.....	Fla.; La.; Tex.	Sand Key, Fla. (84† mph)	284	22	488 persons drowned at sea.
1926, Sept. 6–22.....	Fla.; Ala.	Miami Beach, Fla. (132 mph)	100	105	Most deaths were in Miami area. Said to have been one of most destructive storms of century.
1928, Sept. 6–20.....	Southern Fla.	Lake Okeechobee, Fla. (75† mph)	1,836	25	1,870 injured. Nearly all deaths were in Lake Okeechobee area. Winds estimated as high as 160 mph caused Lake to overflow into populated areas.
1935, Aug. 31–Sept. 8 .	Southern Fla.	Tampa, Fla. (75 mph)	376	6	Sustained winds over Florida Keys est. 150–200 mph. Remembered as "Labor Day Storm," one of most violent on record.
1935, Oct. 30–Nov. 8...	Southern Fla.	Miami, Fla. (75 mph)	5	6	Called "The Yankee Storm" because it moved in from N. E. It was of small diameter and its wind covered only narrow band.
1938, Sept. 16–22.....	Long Island, N. Y. Southern New Eng.	Blue Hills Obs., Mass. (186 mph)	600	250	Unusually destructive. Storm center moved as fast as 56 mph at times. 1,754 injured. Damage est. as high as $330 million.
1940, Aug. 5–15.....	Ga.; S. C.; N. C.	Savannah, Ga. (73 mph)	50	3	30 of deaths were due to disastrous flooding inland as far west as Tennessee.
1941 Sept. 18–25.....	Texas	(See Remarks)	4	6	Winds were est. at over 100 mph at several points along Texas coast. Much of damage was to crops.
1944, Sept. 8–16.....	N. C. to New England	Cape Henry, Va. (134 mph)	46	100	344 deaths at sea. Shipping lanes were crowded with war-time activity.
1944, Oct. 13–21.....	Fla. to Carolinas	Dry Tortugas Is. (120 mph)	18	100	About 300 were killed in Cuba area before storm reached U. S. Evacuation of thousands from threatened areas in Fla. prevented higher toll.
1945, Aug. 24–29.....	Texas	Seadrift, Tex. (135 mph)	3	20	Several other coastal localities recorded 135 mph. One of most intense hurricanes in Texas.
1945, Sept. 11–19.....	Fla.; Ga.; S. C.	Carysfort Reef Light, Fla. (138 mph)	4	60	22 casualties in Bahamas. Damage mostly in Dade Co., Fla. Evacuation of 50,000 persons prevented heavier loss of life.

Date	Areas hardest hit	Land stations with highest wind speed	Deaths (U. S. only)	Est. damage (millions)	Remarks
1947, Sept. 10–19.....	Fla.; Mid-Gulf Coast	Hillsboro Light, Fla. (155 mph)	51	110	Damage especially heavy along Gulf Coast. Onshore winds resulted in high water.
1948, Sept. 18–25.....	Florida	Key West, Fla. (122 mph)	3	12	10 casualties in Cuba.
1949, Aug. 23–29.....	Fla. to Carolinas	Jupiter, Fla. (153 mph)	2	52	Center of storm crossed Lake Okeechobee. Levees held back water, which rose 12 ft. (Compare casualties with 1928.)
1950, Oct. 15–19.....	Florida	Miami, Fla. (122 mph)	4	28	"KING"—small but violent storm. Struck Miami, then moved up Florida peninsula.
1954, Aug. 26–31.....	N. C. to Maine	Block Island, R. I. (135 mph)	60	461	"CAROL"—more damage than any other single storm on record for U. S. Water and high waves flooded low-lying areas 1,000 injuries in Long Island–New England area.
1954, Sept. 6–11.....	N. J. to Maine	Blue Hill Obs., Mass. (101 mph)	21	43	"EDNA"—wind est. up to 135 mph at Massachusetts Bay.
1954, Oct. 5–16.....	S. C. to N. Y.	(See Remarks)	95	252	"HAZEL"—several N. C. localities had winds of 130–150 mph with unusually heavy wave damage resulting. Est. 400–1,000 casualties in Haiti. In Canada there were 78 deaths, mostly due to flooding.
1955, Aug. 11–13.....	N. C. to Pa. and N. Y.	Ft. Macon, N. C. (100 mph)	49	20	"CONNIE"—center passed over Morehead City and Beaufort flooding these cities. 12.35 in. of rain in New York City.
1955, Aug. 17–19.....	N. C. to New England	Wilmington, N. C. (74 mph)	About 200	1,500	"DIANE"—worst floods in history in Southern New England. 16 in. of rain in Hartford area.
1955, Sept. 19–20.....	North Carolina	Beaufort, N. C. (120* mph)	7	160	"IONE"—center passed over Morehead City and Beaufort but lost force rapidly thereafter. Recurved to sea south of Norfolk.

* Estimated. † Wind measuring equipment disabled at speed indicated.

at Cape Hatteras just as the 1955 hurricane season commenced, has proven of considerable value in more accurately locating the center or calm "eye" of the storm and following its movement.

The average life span of a hurricane is about nine days, but those in August normally last longest—around twelve days. An average of eight hurricanes per year have occurred during the past 70 years. This has increased to nine for the past 40 years, and ten per year during the past 20 years. In 1933, twenty-one storms occurred, and in 1890 only one. In 1893 and again in 1950, four hurricanes were in progress at the same time in the Gulf of Mexico, Caribbean Sea or Atlantic Ocean. On the average, two storms every year bring hurricane-force winds to U. S. coastal areas.

The lowest pressure ever recorded in the U. S. was 26.35 inches at Long Key, Fla. The pressure within the "eye" often is less than 28.50 inches. The "eye" or calm center averages about 14 miles in diameter, though it may vary from a few to 40 miles across. Hurricanes always bring torrential rains to some areas over which they pass. The record occurred at Thrall, Tex., in Sept. 1921 when 36.5 inches of rain fell in a 24-hour period.

FLOODS

Floods result from 3 principal sources—melting snow, rain and the oceans or large lakes—or a combination of them, such as rain and tidal waves from hurricanes, or rain and melting snow in the spring.

Thus, it is evident that floods occur along sea coasts or in river valleys. They can and do occur at any season of the year, although certain regions are particularly subject to floods during one season; for example, the Gulf and Atlantic Coasts in the fall, during the hurricane season, the Mississippi-Missouri Valley during the spring, etc.

Floods have always occurred, in spite of our efforts, since the forces of nature involved operate on such an enormous scale. Every year floods of gigantic proportions wreak death and destruction in the far corners of the earth. In 1955, destructive floods occurred three times in North Carolina, twice in Northeastern U. S., twice in Tampico, Mex., and once in Northern India and the Pacific areas. While such floods may not be wholly avoidable, even with our present limited knowledge much could be done to lessen their destructive effects.

Inundations from the ocean may result from a *tidal wave,* usually associated with hurricanes. The very high winds of the hurricane roughen the ocean surface and through friction literally drag the water along with them. This raises the sea level as the storm approaches the coast, and the reduced air pressure at the center of the hurricane may also contribute to its rise. The tides have nothing to do with this phenomenon, nor is it a wave in the correct sense of the word. Nevertheless, if it coincides with the time of high tide, the maximum flooding effect occurs. Furthermore, if long narrow inlets and bays are oriented in relation to the storm's path so as to present a long sweep to the approaching wind and water, the sea will rise to great heights in a surprisingly short time. Such a phenomenon is called a tidal wave. In the Galveston hurricane of 1900, it rose 15 feet above mean high water; and in the 1938 hurricane, the headwaters of Narragansett Bay were some 20 feet above high tide.

Hurricanes may also cause flooding because of the torrential rains they unleash, as Diane did in New England in 1955. If the ground has already been soaked by previous rains, all the water that falls will drain rapidly away to the streams and rivers. When the rain falls faster than it can be carried to the ocean by the streams, they overflow and flood the surrounding area. Flash floods occur when sudden torrential downpours cause many small streams to contribute water to the main stream all at once. On Aug. 17, 1954, such a flash flood drove a wall of water 90 feet high through a gorge 30 miles from Teheran, Iran, and drowned nearly 2,000 pilgrims. The same thing happens when a dam gives way, as in the great Johnstown Flood of 1889.

Or in larger river systems like the Mississippi, when flooding occurs, the water spreads over a vast flat area, and the crest of the flood moves downstream at a steady and predictable rate like a great swell.

No river system can contain within its banks anything near the maximum possible precipitation that can fall over its watershed area. When meteorological conditions are "right," enormous quantities of rain can fall; for example, 12 inches in 42 minutes in Missouri; 24.7 inches in 6 hours at Smethport, Pa.; 36.5 inches in 24 hours at Thrall, Tex. In the Philippines, almost 4 *feet* of rain fell in 24 hours in Baguio; and at Cherrapunji, India, over 150 inches fell in 5 consecutive days in 1841.

Another type of destructive wave, the dislocation wave, is caused by an earthquake or submarine landslide. It occasionally reaches enormous dimensions both in the open sea and near the coasts. On Nov. 1, 1755, the earthquake at Lisbon set up a gigantic wave that not only wreaked havoc there but traveled across the Atlantic and reached the West Indies as a wave 15 to 20 feet high. Similar earthquake waves have brought death and destruction to Japan on many occasions. The eruption of the volcano Krakatoa in the East Indies in 1883 set off a wave that in some areas of the East Indies reached the unbelievable height of over 100 feet. This wall of water took the lives of more than 36,000 people and traveled, ever diminishing in height, across the Indian Ocean and into the Atlantic, half way around the world in 32½ hours. It is believed that some ships which have been lost at sea without a trace may have been victims of enormous disturbances of this kind.

WHAT MAKES WEATHER

BY WEATHER we mean the day-to-day changes in clouds, precipitation, temperature, pressure, humidity, winds and visibility.

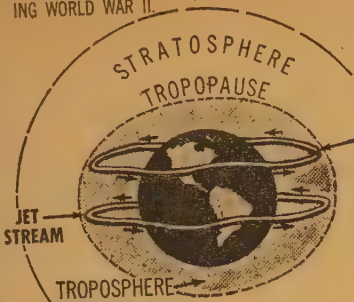
Air is a fairly constant mixture of nitrogen (78% by volume), oxygen (21%) and very small quantities of other gases. The air also contains water vapor in amounts that vary up to a maximum of about 5%. Without this water vapor we would have no clouds, rain or rivers.

Although the *atmosphere** of the earth extends upwards to some 600 miles, one-half of the total mass of the atmosphere is concentrated in the lowest three miles (18,000 feet). The reason for this is that air, like any other substance, is pulled by the force of the earth's gravity downward toward the surface. Thus air has weight, and the pressure it exerts at the earth's surface or at any other level is simply the weight of the air from that surface to the top of the atmosphere. At sea level it

* See page 31 for diagram of atmosphere.

THE ATMOSPHERE

JET STREAM
CORE OF HIGH-SPEED WINDS. 100 MILES PER HOUR OR MORE, JUST BELOW TROPOPAUSE, 50-100 MILES IN DIAMETER. FIRST REPORTED BY U.S. PILOTS DURING WORLD WAR II.



ATMOSPHERE GOES UP TO 600 MILES

ALTITUDE

-75°F 100,000 FEET

SHORT WAVE RADIATION IN THE FORM OF HEAT AND LIGHT FROM THE SUN TO THE EARTH. VERY LITTLE ABSORBED BY THE ATMOSPHERE.

STRATOSPHERE
-67°F

MOSTLY CLEAR
VERY FEW CIRRUS CLOUDS

56,000 FEET
-110°F

TROPOPAUSE
-65°F

CIRRUS CLOUDS

30,000 FEET -60°F

18,000 FEET PRESSURE 15"

TROPOSPHERE

HEAT WAVES REFLECTED BY THE EARTH ARE ABSORBED BY ATMOSPHERE.

CUMULUS CLOUDS

+80°F

SEA LEVEL PRESSURE 30"

NORTH POLE

60° NORTH

EQUATOR

LIGHT WAVES (SHORT) TRANSFORMED INTO HEAT WAVES (LONG)

LATITUDE

Pictograph Corp.

amounts to about 14.7 pounds per square inch, and it decreases as we go aloft.

There are four fundamental factors which transform the atmosphere on our earth from a motionless and invisible gaseous envelope into a throbbing, storm-tossed, airy ocean. These factors are: (1) the presence of water vapor; (2) the heat energy from the sun; (3) the rotation of the earth upon its axis; and (4) the inclination of this axis at an angle of 23½° to the plane in which the earth rotates around the sun. (See Figure 2, page 33.)

Water Vapor

Weather is largely the visible manifestation in the atmosphere of moisture in its various forms—clouds, fog, rain, snow, freezing rain, sleet and hail—through the operation of the water cycle, which begins and ends in the oceans. Water is first evaporated into the air, assisted by the heat energy from the sun. Because of unequal heating of the earth's surface, the moisture-laden air is set in motion, carrying the moisture aloft and over the land, where it is condensed into clouds. These clouds in turn produce the snow and rain which fall to the earth to form the rivers that carry the water back to the ocean, where the cycle begins all over again.

Energy from the Sun

The earth receives light and heat from the sun in the form of "short wave" radiation. This energy passes almost unobstructed through the atmosphere. When it strikes the earth's surface, it is immediately reflected back to the atmosphere in the form of "long wave" radiation. This is absorbed by the air, the layers near the earth's surface soaking up most of it. Thus the air is in reality heated directly by the radiation of heat reflected from the earth. Consequently, the lowest layers are the warmest, and the temperature decreases with altitude. The decrease in temperature continues to about 35,000 feet. This layer of air is called the *troposphere.* Above it is another layer, some 70,000 feet thick, called the *stratosphere,* in which the temperature remains constant or increases only slightly with altitude. The surface separating the stratosphere and troposphere is known as the *tropopause.* The jet stream is found just below this level in the troposphere.

The *jet stream* was first discovered by American bomber pilots over Japan in 1944. Cruising at 250 mph at about 30,000 feet, these pilots found themselves remaining stationary over their target areas, sitting ducks for enemy anti-aircraft artillery. Unbelieving meteorologists at first thought the crews had gotten lost, but repeated experiences convinced them that here was something new and different.

Prof. Carl Rossby at the University of Chicago took up the first full-scale study of this phenomenon in 1946 and named it the "jet stream." It was found to be a narrow core of high-speed westerly winds of 100 mph or more flowing through the relatively slow-moving atmosphere. The core of highest winds is only about 50 to 100 miles in horizontal extent and a few thousand feet in depth. It extends around the earth in a meandering course between the Tropic of Cancer and the Arctic Circle. A similar jet stream pattern occurs in the Southern Hemisphere.

The term jet stream has no particular connotation in relation to jet aircraft; it is mere coincidence that the highest speeds of the jet stream occur at the same altitudes where modern jet aircraft operate most efficiently. Today, aircraft of any type capable of flying above 20,000 feet can and do take advantage of the jet stream to speed the traveler on his way.

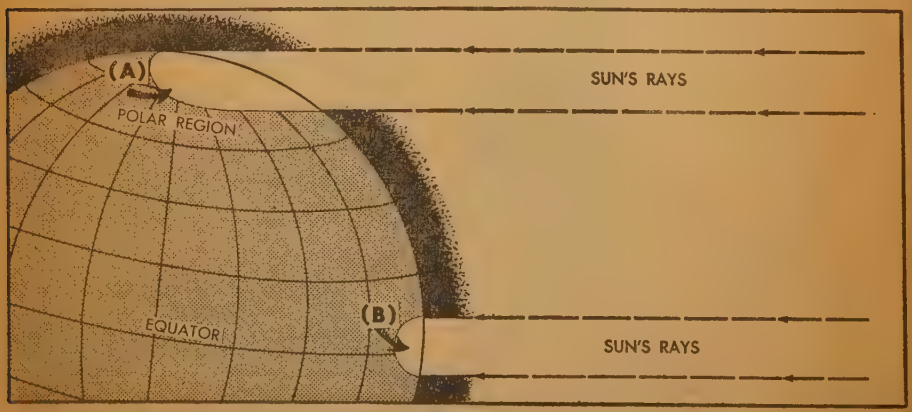


Figure 1 *Pictograph Corp.*

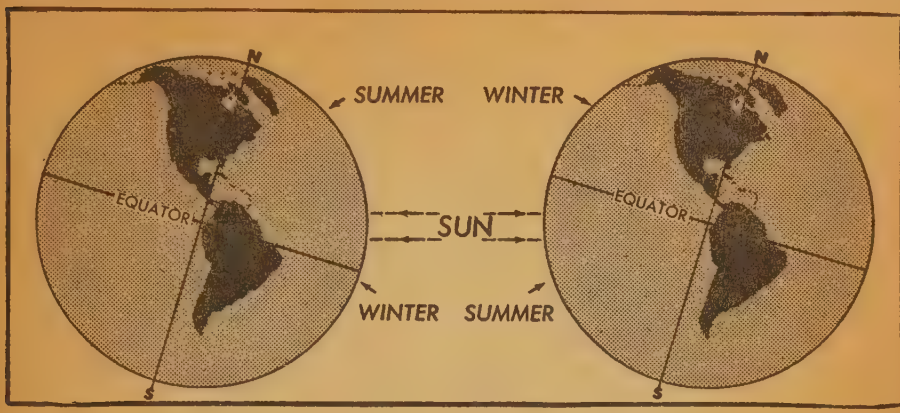


Figure 2 *Pictograph Corp.*

This diagram represents the inclination of the earth's axis to the sun's rays when it is summer in the Northern Hemisphere. In this diagram, it is summer in the Southern Hemisphere and winter in the Northern.

Each hemisphere is warmer in summer than in winter because the sun's rays are more nearly perpendicular and also because the days are longer.

Rotation of the Earth upon Its Axis

This has two fundamental effects upon the weather. First, it brings alternately day and night, and the resultant heating and cooling of the atmosphere. This in turn produces other effects such as increased winds, turbulence, thunderstorm activity, etc., during the day; greater tendency for fog formation at night; and other phenomena. Second, it causes all winds to be deflected to the right in the Northern Hemisphere and to the left in the Southern Hemisphere.

Inclination of the Earth's Axis

This causes the progression of the seasons. The sun's rays reach the earth's surface essentially parallel. The heat from these rays is more concentrated over that portion of the earth's surface where these rays strike nearly perpendicular as in the equatorial regions, (B) in Figure 1, than where they strike a more glancing blow as in the polar regions, (A) in Figure 1.

TOPOGRAPHY

In addition to the four basic factors we have just discussed, many important features of the earth's topography, such as the oceans, the mountains and the plains play a part in determining weather.

Oceans and Ocean Currents

The oceans cover three-fourths of the earth's surface and exert a mighty influence upon the weather over the globe. This is due in part to the great heat capacity of water, that is, its capacity for either absorbing or giving up large quantities of heat with but little change in its own temperature. The oceans are also the primary source of moisture. When air masses move out over water from land, the air rapidly assumes the temperature of the ocean. The interaction of air and ocean surface, the unequal heating of the oceans in different latitudes, and the rotation of the earth, all contribute to the establishment of permanent ocean currents such as the Gulf Stream, the Labrador Current, the Japanese Current, the Peru Current, etc.

These currents, carrying enormous quantities of relatively warm or cold water to the far corners of the globe, vitally affect our weather and climate. It is the Peru Current, for example, that makes it possible to sleep under blankets on the Galapagos Islands right on the Equator off the West Coast of South America. The California Current, a southern extension of the Japanese Current, and upswelling cold water along the coast keep San Francisco a cool 65° at midday in August. A northern extension, the Alaska Current, warms Ketchikan, Alaska, to an average of 33° in midwinter. Great cities like London and Glasgow, at the same latitude as frozen Labrador, have average temperatures of 39° in midwinter because of the moderating influence of the Gulf Stream; even the coastal towns of Iceland on the Arctic Circle are warmed to such an ex-

tent by the Gulf Stream that average temperatures in winter are only slightly below freezing.

The effect on precipitation is equally important. Thus, the complete absence of rain along the California Coast in July and August is caused by the cold ocean waters which cool the air, thereby suppressing the rising air currents necessary to the formation of rain. Similarly, in Chile and Peru, the coastal regions are mostly deserts as a result of the Peru Current. On the other hand, the influence of the warm Gulf Stream causes the large amounts of rainfall in Iceland, the British Isles and the West Coast of Norway. Here the effect is twofold in that the Gulf Stream provides a source of moisture, and it also heats the surface layers of the overlying cold air and thus helps to create the rising air currents that produce rain or snow.

Mountains

The direction in which the great ranges are oriented geographically is of utmost importance in their effect upon the weather. In the U. S. they run more or less north and south, and since the weather moves generally west to east, the ranges provide a blocking effect and a tendency to slow down air mass and frontal movements as they are forced up and over the mountains. During this process, the moisture is literally wrung out of the air. That is why locations to the windward side of the mountains are cloudy and wet, like Ashford, Wash., with 71.6 inches of rain per year, while Yakima, Wash., only 70 miles to the east on the leeward side of the Cascade Range has less than one-tenth as much, or only 6.7 inches per year. Thus, some of our desert areas are due in part to the shielding effect of mountains.

In the same way that the Coastal and Cascade Ranges prevent eastward movement of warm, moist air off the Pacific without considerable modification, so do the Rockies prevent westward displacement of cold polar air. As a result, temperatures along the East Coast are much colder than on the West Coast. The Appalachians are not high enough to form an effective climatic barrier, although they do exert an influence on the local weather.

All mountains are generally colder and wetter, cloudier and windier than their intervening valleys, because they protrude up into the colder, windier air aloft. On Mt. Washington, for example, which lifts its head a mere 6,288 feet above the sea, one can ski in late spring, and here has been recorded the highest wind velocity on earth—238 mph.

Plains

Between the Rockies and the Appalachians lies the Great Central Plain extending unbroken from the Arctic Ocean to the Gulf of Mexico and drained in its U. S. areas by the far flung Mississippi-Missouri river system and the Great Lakes-St. Lawrence waterway. The Great Lakes play an important role in modifying the air masses which move across the region. In summer, the warm air picks up moisture and is cooled as it traverses the lakes; in winter the relatively warm lakes, which never freeze over entirely, provide moisture and rapid heating to the surface layers of cold polar air moving down from Canada. This moisture is then dumped on the south and east lake shores in the form of snow showers, making the Cleveland-Buffalo-Watertown area among the snowiest in the country.

In this Great Plain, cold air masses from the Canadian Arctic have full play to engage in battle, along cold and warm fronts, the hot humid air masses from the tropics and the Gulf of Mexico. Since there are no mountain barriers to intervene, hot humid air from the Gulf of Mexico often penetrates far north into Canada in summer. And likewise in winter, cold Canadian air masses push unobstructed far southward into eastern Mexico and the tropics, so that zero-degree temperatures have been recorded in all Gulf Coast states.

Along the fronts which develop between these warm and cold, moist and dry air masses originate the storms that give us our more severe weather, such as cold waves and blizzards, heavy rain, snow and ice storms, squall lines and thunderstorms. These add violence to the variety of daily weather patterns that go to make up our American climate. And in the Great Plains, conditions are more favorable than in any other part of the world for the development of the most terrifying storm known to man—the tornado.

PRECIPITATION

Rain

One of the most common of all weather phenomena is *rain*. What makes it rain? Nobody knows precisely, but here are a few of the factors basic to the development of the many different forms of precipitation, such as rain, freezing rain, sleet, snow and hail. The requirements for precipitation are essentially three in number:

1. The presence of nuclei in the air, such as very small dust or salt particles.
2. The presence of sufficient water vapor.
3. Rising currents of moisture-laden air.

The process is essentially as follows: A quantity of unsaturated air is forced to rise from the lower levels of the atmos-

phere to a considerable height—for example, from the earth's surface to 18,000 feet. As it rises, it moves into regions of continually decreasing pressure, until at the 18,000-foot level the pressure is only half as much as it was at the surface. Since the pressure has decreased, the volume of the rising air has increased and is now about double what it was originally. This expansion has caused the temperature of the rising air to decrease, so that at 18,000 feet it may be some 70° F. colder and therefore the air has now become saturated. If sufficient dust or salt particles are present, and they usually are, condensation will take place on these nuclei; that is, water vapor in the gaseous state is transformed into millions of liquid droplets, forming a cloud.

If the air continues to rise, more and more moisture will be condensed out, so that the cloud and the individual droplets grow in size. When the drops, through collision and accretion, become too large to be supported by the rising currents, they fall to the earth as rain. This process is believed to occur in the tropics, whereas an additional step is required in the Temperate Zone and the Arctic regions.

Snow

There, it is believed, snow must first occur before rain can fall. Three things happen: (1) Some of the water droplets, formed as previously described, must freeze to form ice crystals nuclei on which snowflakes will grow. (2) A direct sublimation process then occurs in which some of the water vapor, in gaseous form, condenses out directly on the ice crystals, causing them to grow into snowflakes. (3) The snowflakes, through growth and collision with other snowflakes eventually become too heavy to be sustained in the rising currents. Therefore, they fall to the earth either as snow, or as rain, if the lower layers of the atmosphere are warm enough to melt the snowflakes.

In step (1) above, the saturated air is cooled to below freezing temperatures as it continues to rise and expand. The drops must be cooled usually well below the freezing point of 32°F, sometimes 20° to 30° below or more, before they will freeze.*

Then the stage is set for step (2) since a mixture of supercooled liquid drops and ice crystals is now formed. This is an unstable condition because the vapor pressure over the drops is greater than over the crystals. Consequently the crystals grow at the expense of the drops, that is, the water molecules from the drops evaporate, pass over into the gaseous phase and then condense out to form the snowflakes.

In step (3) the water drops formed from the melted snowflakes continue to grow in size by collision and accretion as they fall through the lower layers of the cloud.

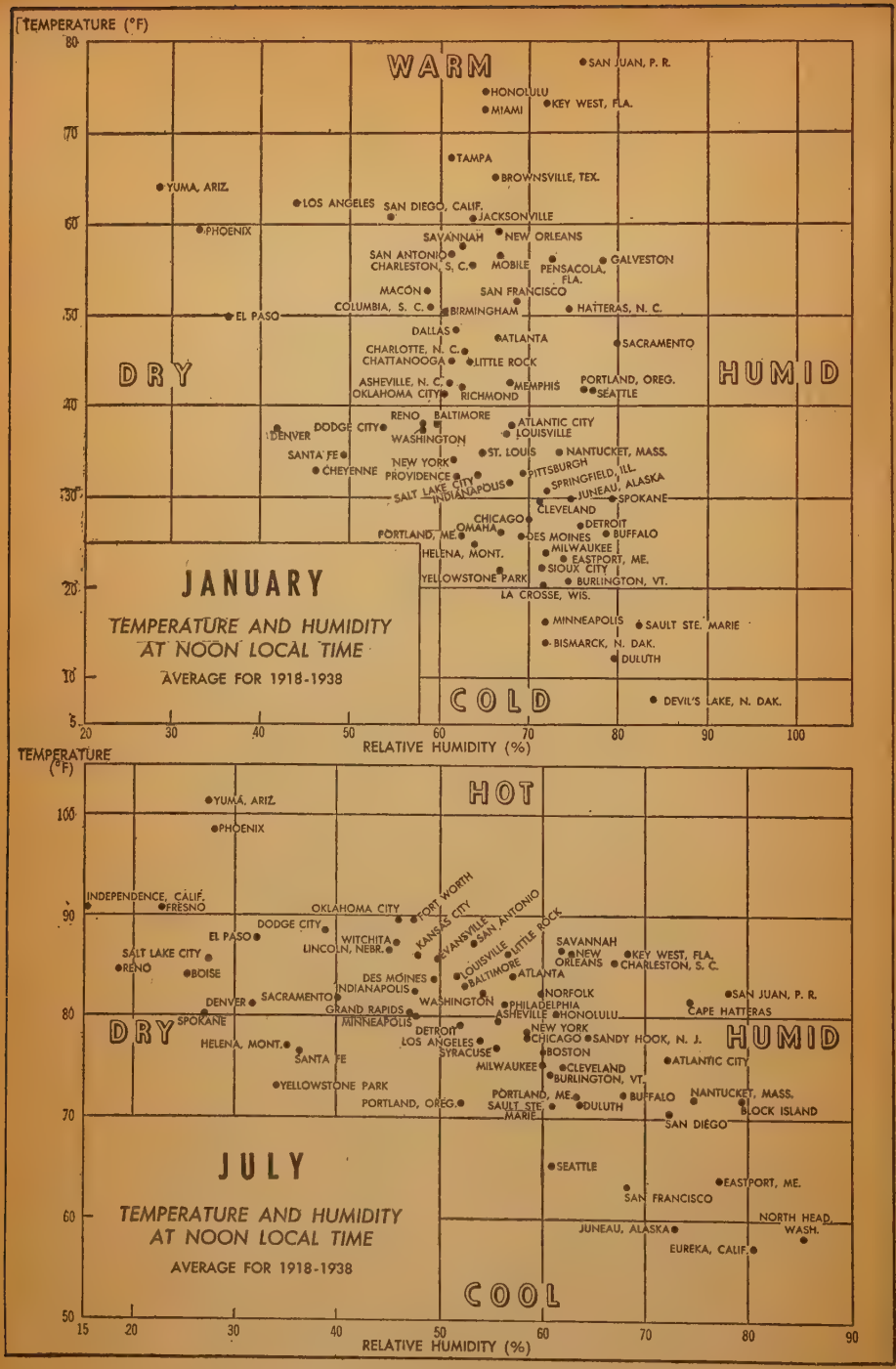
Freezing Rain, Sleet and Hail

If the layer of air next to the ground is below freezing, rain will freeze on objects such as wires, poles, trees, etc. This is a *freezing rain* and is the cause of our disastrous ice storms. If the layer of air next to the ground is deep and cold enough, the raindrops will freeze before reaching the ground to form *sleet*. Here the ice pellets (sleet) are formed in the lowest layer next to the ground. Ice pellets of larger size, called *hail*, are also formed from frozen raindrops, but under entirely different meteorological conditions. Hail occurs only in thunderstorms and is formed from raindrops frozen in the higher levels. These may be tossed alternately above and below the freezing level by turbulent currents, where the pellets become covered with a layer of water which then freezes, the process being repeated over and over again; or the frozen drop, while continuing to fall, passes through super-cooled cloud layers. That is why hail often exhibits an onionlike layer structure. Conditions for hail formation occur most frequently just east of the Rockies from the Mexican to the Canadian border. Hailstones the size of golf balls or even baseballs sometimes occur. The largest stone on record fell near Potter, Nebr., July 6, 1928. It weighed 1½ pounds and was 17 inches in circumference.

Thunderstorms

Thunderstorms are the result of a very rapid decrease of temperature with altitude. As previously explained, the temperature of the air usually decreases as we go aloft through the troposphere. This decrease of temperature with altitude is called the *lapse rate*. The lapse rate at any particular time determines the "stability" of the atmosphere; that is, the tendency of the atmosphere to resist vertical motion. Rising currents of unsaturated air expand and cool at the rate of 5½° F. per thousand feet; however, saturated air cools at a slower rate (2° to 5° per thousand feet depending on the temperature of the rising current) because the process of condensation releases heat which is absorbed by the air. If a lapse rate of more than 5½° per thousand feet develops in a layer of air, the layer is said to be absolutely unstable and rising currents will develop. At the top of these rising currents, cumulus clouds may form. This often occurs on a summer afternoon. If the temperature decreases rapidly enough with increasing alti-

* It is important to keep in mind that, although fairly pure water in bulk will normally freeze at 32°F, when it is in the shape of cloud droplets, it may remain unfrozen even below 32°F, sometimes even as low as 40° below zero, unless struck by some foreign object such as an airplane. Then it immediately freezes. This is how aircraft icing occurs.



Pictograph Corp.

tude (that is, if the lapse rate is steep enough) so that the temperature of the rising current of air inside the cloud remains warmer, level for level, than the temperature outside the building cumulus cloud, this cloud will grow into a *thunderstorm.*

When a thunderstorm develops, very marked changes occur in the electric field of the earth and the atmosphere. Although the exact mechanism by which these changes develop is not understood, it is believed associated with the coexistence of water drops and snow or ice crystals. When the difference between the positive and negative charges exceeds a critical value, a *lightning* discharge occurs. This sudden surge of tremendous quantities of electricity heats up to a very high temperature the thin column of air through which it passes. A rapid expansion of this air, in effect an explosive expansion, sends out the deep throated rumblings we call *thunder.* Since this travels at the speed of sound, much slower than the speed of light, the thunder is always heard after the flash which caused it is seen. *Heat lightning* is simply a thunderstorm too far away for the thunder to be heard.

Smog

If the lapse rate in a layer is less than that for saturated air, then the layer is said to be absolutely stable and no vertical currents can develop in it. This means smooth flying conditions. It is also ideal for the production of *smog,* since the smoke, fog and other pollutants cannot escape upwards.

Los Angeles has become noted for its smog in recent years. It has always had ideal topographical and meteorological conditions for smog development—a coastal plain surrounded on the north, east and south by mountains, and the Pacific Ocean on the west, from which gentle westerly winds bring moist air to the area. Moreover, air is prevented from rising because at a thousand feet or less the temperature actually increases with altitude. This region awaited only the pollution which some 5,000,000 inhabitants now pour forth daily into this atmospheric trap to bring this potential smog condition to a reality. Unable to escape horizontally because of the mountains, or vertically because of the extremely stable lapse rate, the pollution continues to collect in this shallow surface layer of air day by day, until a changing weather situation empties the trap and finally brings relief. Any mountain valley is a potential smog area, as the people of Donora, Pa., or the Meuse Valley in Belgium can testify.

Rain making

The possibilities of weather modification, particularly rain making, have kindled the imagination of scientist and layman alike. The basic requirement for rain making is a natural weather condition already conducive to the development of precipitation, to which is added dry ice (that is, frozen carbon dioxide), silver iodide crystals, or just plain buckets of water. These materials are added merely to serve as triggering mechanisms; not to "make" rain, but to increase the quantity that would otherwise fall naturally anyway. This procedure is called "seeding" the clouds. The dry ice or water is dropped from an airplane flying in or above the clouds. Silver iodide is usually released from ground generators under the assumption that the crystals will eventually rise into the clouds above.

It should be kept in mind that rain making as an economically feasible operation in its present stage of development is a very controversial subject. The Advisory Committee on Weather Control appointed by President Eisenhower will submit its report on this matter to Congress about July 1, 1956.

ATOMIC BOMBS AND WEATHER

There is much fear and misunderstanding regarding the effect of atomic or hydrogen bombs on the weather. One reason may be that people do not realize what enormous quantities of energy are involved in weather processes. In comparison, the energy released by the bombs is puny and insignificant. To expect an atomic bomb to influence the weather materially is like dropping a pebble in the middle of the ocean and expecting a tidal wave to result. There may be enough heat released to form a cloud and perhaps even a local shower at the point of bomb detonation. Even forest fires sometimes have the same effect. Another possibility is that a bomb might act as a triggering mechanism by providing additional condensation nuclei that otherwise might not be available. However, careful studies have been made by competent scientists, and it is concluded that the release of atomic bombs has had no effect on our weather, other than of a strictly local nature.

On the other hand, weather has a very important effect on the devastation caused by the bomb. This is brought about by the already existing upper winds which carry the radioactive debris along for great distances. When an atomic bomb is exploded, these radioactive or "hot" particles are distributed through all layers of the atmosphere on up to the stratosphere, 35,000 to 40,000 feet above the earth's surface. Winds in these higher levels sometimes reach velocities of 150 miles per hour or more. Consequently, before the "hot" par-

ticles can drop back to the earth as atomic or radioactive "fall out," they may be distributed downwind to contaminate the countryside over a wide area. The Weather Bureau now takes daily samples of the air at many of its stations as standard procedure to detect any evidence of excessive radioactivity.

IS OUR CLIMATE CHANGING?

THE IDEA SEEMS to be current that our climate is changing: that storms are more frequent and more violent, that smog is increasing, that we are getting less snow and that winters are warmer. How much of this is true and what is the explanation?

During historic times there have, of course, been minor climatic variations, but the over-all trend is hardly discernible; and conditions in Europe and North America are not much different now than they were 2,000 years ago.

Except for very recent times, our knowledge of climatic changes that occurred in the past depends upon such indirect evidence as ocean bottom borings, glacial deposits and movements of glaciers, vegetation, fauna, historical records of migrations, advance and decline of civilizations, etc. Direct evidence in the form of temperature, precipitation, and other weather records have been kept for only about 150 years and pitifully few are that old. Even of these, very few are strictly comparable due to the moving of instruments from place to place and the effect of increased population and industrialization.

Relatively small changes in average temperature make an important difference in climate, but such changes are not easy to detect. In the first place, when systematic observations were inaugurated, neither the procedures for observing the weather nor weather instruments themselves were standardized.

From time to time, the instruments were moved from one location within a city to another. When aviation began to grow, many stations were moved from the city to the airport. As the airport grew, the instruments were moved from a grass plot at ground level to the top of a two- or three-story building, and so on. With the growth of a city—brick and concrete instead of trees and grass, more exhaust gas, furnaces and smoke—the average winter temperature may increase by as much as one or two degrees. When you consider that the best estimate of the temperature change in the eastern U. S. during the past 100 years is an over-all increase of only about 2° to 3° F., or .03° per year, it becomes evident that our weather records could be misleading if the artificially produced, man-made effects are not carefully screened out from the naturally occurring climatic changes. Temperatures within a radius of 10 miles can vary more than this small fraction of a degree. In fact, there is a greater variation than that in temperatures between the standard height of the shelter, 4½ feet, and ground level; and weather from year to year fluctuates over far wider ranges. Thus, it is not easy to detect the long-term trends.

In spite of all these difficulties, valid comparisons have been made between present trends and conditions 50 to 60 years ago. The conclusions show that it has become warmer in the middle latitudes of the Northern Hemisphere, mostly in the winter, by about 2° F. There is less snow cover, and cloudiness has increased. Toward the Arctic, the warming has been more spectacular. The tree line is moving north in Siberia, Lapland and Labrador. Glaciers have receded—in Scandinavia by several thousand feet—and the permanent snow line in the mountains is now several hundred feet higher.

Precipitation records are more difficult to evaluate because of their extreme fluctuations so that we cannot yet say whether conditions are now wetter or drier than they were 50 years ago.

Thus we see that climatic changes have occurred during a lifetime, but they are small when compared to yearly changes, as may be exemplified by the fact that even though snow cover is on the decrease, New York City had its heaviest snowfall in history only 8 years ago. What causes these changes? Nobody knows. And will the warming trend continue? Your guess is as good as the experts'.

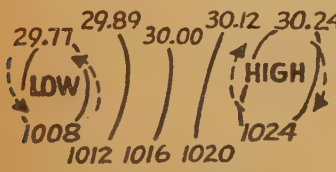
HOW TO READ A SURFACE WEATHER MAP

NOWADAYS, daily weather maps appear in many newspapers. Basically, these maps show the position of cold, warm and other types of fronts, and the varying pressure or weight of the atmosphere at different localities on the earth's surface. Because the air has mass like all other substances, it is pulled by force of gravity toward the earth so that it has weight. The weight of the air is measured by the pressure it exerts on a column of mercury in a barometer. At sea level, the normal atmospheric pressure balances a column 30 inches high. When the pressure is

higher or lower, the barometric reading varies accordingly.

If the earth were a perfect nonrotating globe and not subject to unequal heating by the sun, then the atmospheric pressure everywhere at the surface of the earth would be the same, the temperature would never vary and there would never by any wind. In other words, the total mass and, therefore, the weight of this column of air from the surface to the top of the atmosphere would be the same everywhere. Fortunately, this is not the case. The earth rotates, it has water and land masses, mountains and valleys, and these areas and the air above them are heated unequally. The warm air expands and rises, the cold air contracts and descends. Thus the air is set in motion, and forces begin to operate in a ceaseless effort to return the atmosphere to a state of equilibrium. This movement of air causes a constant change of pressure all over the earth.

Observations are taken simultaneously at numerous points around the globe and the pressures plotted on a map. Lines are drawn connecting places having the same pressure. These lines are called *isobars,* and the closer together they are, the higher the winds. These isobars delineate regions of high and low pressure—called *Highs* and *Lows.*



The number above each line gives the barometric pressure in inches; the number below gives it in millibars.

Just as sand tends to settle and flow out from the center of a sand pile, air settles or descends and flows out from the center of a high-pressure area. Conversely, air flows in toward a low-pressure center and rises. Generally speaking, Highs, or areas of descending air, are regions of good weather; and Lows, where the air is slowly rising, are areas of bad weather—storms and precipitation.

A *front* is the leading or forward edge of an advancing mass of warm or cold air as it moves across the country. The very term *front* originated during World War I to indicate the ceaseless battle of the elements comparable to the gigantic battle of the Allied and German Armies as they struggled for victory back and forth across the Western Front. In winter, for instance, a tremendous mass of air may stagnate for several days or a week in Western Canada between the Canadian Rockies and Hudson Bay. Each day it gets colder and colder, especially in the lower layers. Finally it starts moving southward into the U. S. The leading edge of this mass as it moves southward and displaces warmer air at the surface of the earth is called a *cold front.*

In like manner, warm moist air masses moving northward out of the Gulf of Mexico or Western Atlantic Ocean meet colder air masses to the north. If this warm air pushes back the colder air and replaces it at the surface, the leading edge of the warm air mass is called a *warm front.* When a warm air mass on the surface is underrun and lifted by two opposing colder air masses, it is called an *occluded front.*



Cold Front *Warm Front* *Occluded Front*

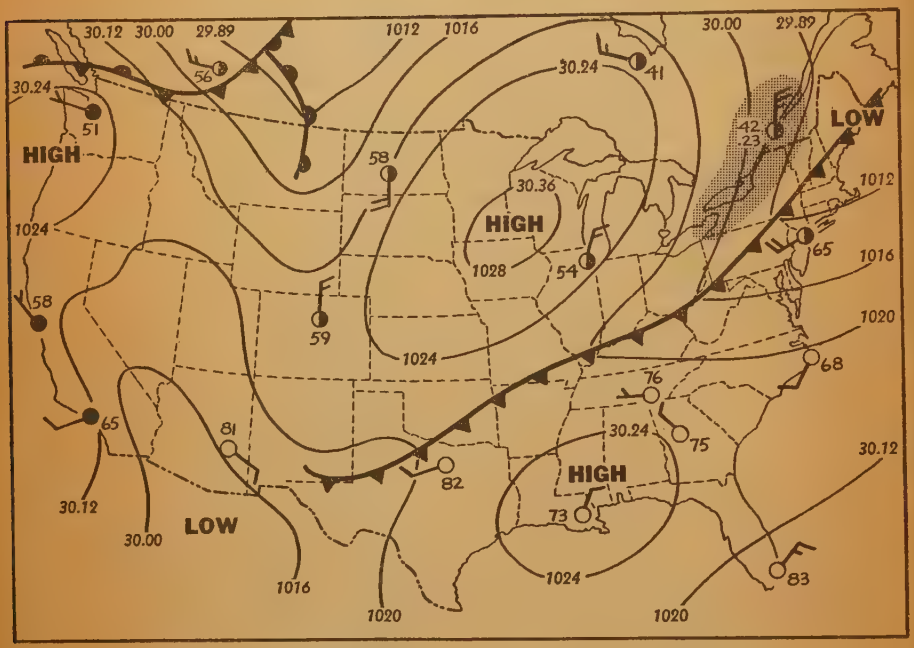
Surface air flows in a clockwise direction around a High, and counterclockwise around a Low—in the Northern Hemisphere. Thus a map which contains nothing but fronts and isobars showing Highs and Lows automatically provides information concerning the general wind flow. Since Highs and Lows in the Temperate Zone in the U. S. move generally from west to east at an average rate of around 500 miles per day in summer and 700 miles per day in winter, some idea of future weather conditions can be inferred from the position of these pressure centers and fronts. However, maps often contain wind arrows showing the direction from which the winds are blowing and their velocity.



Reading from left to right, the station circle on each wind arrow indicates cloudy, partly cloudy and clear weather. The directions of the arrow shafts show that the winds are from the northwest, east and southeast, and the flags indicate velocities of 12.28 and 18 miles per hour, respectively. Numbers beside station circles indicate temperatures (Fahrenheit). A key to the symbols is generally given with published weather maps.

Surface weather maps are prepared from simultaneous observations taken at some 900 surface stations in the U. S. alone. Only a very small amount of this data is

plotted on maps made available to the general public. Readers are cautioned to note whether the maps they are looking at are prognostic charts of weather expected sometime in the future, or actual maps of past conditions, and to note the effective time of the map. For example, your morning newspaper may carry a map of actual weather conditions. If so, due to the time lag involved in collecting and analyzing the maps and printing the newspaper, it probably represents conditions as they existed at 1:30 P.M., EST, the previous afternoon.



EXPLANATION OF WEATHER MAP

The main features of the above map are a low pressure area in Southwest Canada with its associated cold, warm and occluded fronts, and two high pressure areas in the central part of the country, separated by a cold front.

The cold air mass north of the front has temperatures mostly in the 40's and 50's, while the temperatures in the warm air mass south of the front are running mostly in the 70's. The wedge-shape symbols on the cold front point in the general direction of its movement, that is, to the southeast. We would therefore expect a cold front passage at New York later in the day, with winds shifing from west-southwest about 25 miles an hour to north winds of about the same velocity. After this front passage, temperatures at New York would be expected to drop from the 60's to the 40's. Reading from the map, the New York temperature is 65°, winds west-southwest about 25 miles per hour, and weather partly cloudy, while at Montreal temperature is 42°, there has been twenty-three hundredths (.23) of an inch of rain in the past six hours, the wind is blowing from the north at about 30 miles per hour, and the weather is partly cloudy.

There is only a small area of precipitation as indicated by the shading in upper New York State, Lake Ontario, and the St. Lawrence River Valley. Elsewhere, station circles show that the weather is generally good, that is, clear or partly cloudy, except on the West Coast where it is cloudy.

WEATHER FOLKLORE

ALMOST EVERY ADULT on earth is, to some degree, an observer of the weather. And because of its effect on our lives and the lack of scientific forecasts until recent times, many of the more weather-wise have tried to tie together the sequence of weather phenomena into sets of rules, which have come down to us in popular sayings, many of them rhymed. Contradictions are numerous and few of them stand the test of scientific examination.

Let's take a look at some of the better-known examples and see what may lie behind them.

1. "If it rains on St. Swithin's Day (July 15), it will rain for 40 days." Swithin was an English ecclesiastic of the 9th century. He was buried just outside his church at Winchester, where rain would drop on his grave from the eaves. Later, he was canonized, and his remains were exhumed and buried inside the church. The event was scheduled for July 15, but on that day heavy rains came, so the story goes, and continued for 40 days. Thus the disinterment was postponed, and the legend grew.

2. "Ring (or halo) around the moon means rain." The ring or halo is caused by the refraction or bending of light from the moon by the flat ice crystals of which cirrus clouds are composed. Since these cirrus clouds may be the leading edge of a warm front, this halo could be the forerunner of rain produced by the warm front as it advances toward the observer. Thus a plausible bit of weather lore, but by no means a sure bet.

3. "Lightning never strikes twice in the same place." What appears to the naked eye of an observer as a single stroke of lightning is, in fact, a series of discharges along the same path, alternating in direction between cloud and ground. Furthermore, any object which looms above its surroundings makes a better path for the discharge than the nearby air. Consequently, tall buildings, such as the Empire State Building, church spires, and, in fact, lightning rods placed there for the purpose, are repeatedly struck by lightning.

4. "If the woodchuck or ground hog sees his shadow on ground-hog day, Feb. 2, he returns to his hole for 6 weeks more of winter." This legend is supposed to have originated among the Negroes of the Middle Atlantic States. It is based on the fact that the ground hog does sometimes come out of hibernation this early. Supposedly he will see his shadow if the sun is shining brightly on snow-covered ground, and this indicates a hard winter and more to follow! On the other hand, he will see no shadow if there is no snow and low hanging rain clouds are present. This would indicate an open winter and consequently an early spring.

Not very scientific but, unfortunately, no worse than any other method used today for forecasting weather 6 weeks or more in advance.

5. "The wider the reddish-brown bands on the wooly bear caterpillar in the fall, the milder the following winter." This idea seems to have grown up among farmers in the Northeast for lack of a better omen. Why the wooly bears should so gird themselves has not yet been explained, but who cares, if they foretell the truth. A scientific investigation of this prognostic ability has been undertaken, covering a period of 4 to 5 winters. The results so far have not proven 100% correct, but they appear to be better than chance, and so deserve to be continued.

6. "When squirrels lay in a large supply of nuts, expect a cold winter"; but:

"When he eats them on the tree,
Weather as warm as warm can be."

Somebody must have been watching a particularly lively little fellow. Animals are marvelous creatures in their way, and they have been endowed with instincts that are sometimes nothing short of miraculous. But in spite of the many keen observers of animals, there is as yet no scientific proof that any species of them have a sixth sense that enables them to foretell the weather. If such be the case, the weathermen are surely missing a bet by not going into ground-hog, wooly-bear or squirrel farming.

7. "March comes in like a lion and goes out like a lamb." This saying refers to the much higher and gustier surface winds more frequently observed at the beginning of the month than at the end. Ordinarily, February is our coldest and most severe winter month up North, while in the South it has already begun to warm up by late February, becaues the sun has been increasing in strength since December 21. Thus, by the first of March, extreme contrasts in air masses of markedly different temperatures exist. Very cold air masses push down from the North to come in contact with unusually hot and humid air masses moving up from the Gulf of Mexico and the Gulf States. The result is often storms of great violence accompanied by very high and gusty surface winds. It is a pretty good bet that on March 1 or 2 there is some such storm somewhere in the U. S. By the end of the month, the contrast in air masses has

moderated considerably, so that the likelihood of such severe storms is much reduced. Consequently, somewhat milder and less windy weather is the rule around the end of March.

8. "Rainbow (or red sky) at night,
sailor's delight.
Rainbow (or red sky) at dawning,
sailor's sad warning."

Storms and weather move generally from west to east. And a rainbow is the result of the sun shining upon rain drops, with the observer between the sun and the rain. A red sky requires sun shining upon cloud bases. Thus a rainbow or red sky at night (actually near sunset) indicates that the sun is setting in a clearing sky in the west but is shining upon raindrops or storm clouds further east. As the rain and clouds move off to the east, the sky over the observer will soon show the clearing effects already noted in the west, to the delight of the sailor.

On the other hand, the sun, rising in the east, is shining upon rain and storm clouds to the west of the observer. This storm will later move overhead, as the weather moves from west to east, to soak the sailor who did not heed the warning.

There is a semblance of scientific truth in this saying, but, of course, it leaves out a great many factors.

9. "A coming storm your shooting corns presage
And aches will throb, your hollow tooth will rage."

Many types of aches and pains are more or less periodic, at least their intensity varies irregularly. Likewise, bad weather is an irregularly occurring phenomenon. Thus by coincidence a corn may start "acting up" just prior to an approaching storm, but so far as we can determine there is no relationship between them. At any rate, professional weather forecasters afflicted with corns or toothaches have not up to now outshone their more fortunate brethren in the accuracy of their forecasts.

We could go on indefinitely. Whole books have been written about weather lore. But as man advances his knowledge and understanding of the fascinating facts about the weather, there recedes behind him into oblivion, or onto dusty bookshelves, the great mass of weather lore that has grown up in a bygone era in a futile attempt to foretell the caprices of the elements.

CLIMATE OF SELECTED U. S. CITIES

Source: U. S. Weather Bureau.

Asterisk (*) indicates less than one-half; T—indicates trace; TH—indicates trace of hail; n.a.—indicates not available.

Month	Temperature				Precipitation			% possible sunshine	% relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
BAKERSFIELD, CALIFORNIA									
January	57	37	82	14	1.02	T	6	n.a.	70
April	76	50	100	30	0.75	T	4	n.a.	46
July	101	67	118	46	0.01	0.0	*	n.a.	29
October	81	52	104	31	0.37	0.0	2	n.a.	40
Annual	79	51	118	13	6.36	0.1	34	n.a.	47
CARIBOU, MAINE									
January	18	−1	51	−32	2.24	20.6	14	n.a.	69
April	43	26	80	2	2.63	6.5	13	n.a.	59
July	75	54	95	40	4.03	T	13	n.a.	58
October	51	33	79	14	3.47	1.8	12	n.a.	61
Annual	47	28	96	−32	35.88	99.3	154	n.a.	62
CHICAGO, ILLINOIS									
January	33	17	67	−20	1.84	8.7	11	44	71
April	58	39	91	17	2.82	1.0	11	56	58
July	85	64	105	49	2.73	0.0	9	73	56
October	64	44	91	14	2.56	0.1	9	61	56
Annual	59	41	105	−23	32.72	33.9	124	59	61

Month	Temperature				Precipitation			% possible sunshine	% relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
DALLAS, TEXAS									
January	55	36	88	−3	2.47	1.2	8	51	62
April	77	56	96	30	3.87	T	8	63	53
July	95	76	111	56	1.97	0.0	5	79	49
October	80	58	100	26	2.67	0.0	6	68	50
Annual	77	56	111	−3	34.42	2.4	81	67	53
DENVER, COLORADO									
January	42	16	76	−29	0.50	6.1	5	67	42
April	61	34	86	4	2.05	9.6	9	63	39
July	87	58	102	42	1.36	T	9	68	30
October	66	37	90	−2	1.01	3.9	6	71	34
Annual	64	36	105	−29	14.20	55.9	86	67	37
DULUTH, MINNESOTA									
January	19	2	55	−41	1.01	11.0	10	46	74
April	47	30	88	−5	2.21	4.8	9	58	60
July	76	56	106	41	3.31	T	11	68	61
October	54	37	85	8	1.96	1.1	10	47	62
Annual	48	30	106	−41	26.63	55.1	126	55	66
GREAT FALLS, MONTANA									
January	32	14	62	−33	0.55	7.6	7	48	63
April	56	33	87	−6	0.95	3.2	8	63	45
July	84	55	102	43	1.35	T	7	81	36
October	59	37	91	7	0.72	2.0	6	60	48
Annual	56	34	105	−35	14.03	50.9	96	62	51
KANSAS CITY, MISSOURI									
January	39	21	75	−20	1.43	4.6	7	55	64
April	66	46	95	16	3.61	0.8	11	60	53
July	91	71	112	53	2.83	0.0	9	76	49
October	70	49	98	17	2.93	0.2	7	67	51
Annual	66	46	113	−22	35.31	20.5	104	65	55
LOS ANGELES, CALIFORNIA (CITY OFFICE)									
January	65	45	90	28	2.38	T	[illegible]	[illegible]	45
April	71	52	100	36	1.17	0.0	[illegible]	67	52
July	83	62	109	49	T	0.0	[illegible]	78	52
October	77	56	104	40	0.50	0.0	2	76	47
Annual	74	54	109	28	14.54	T	39	73	49
MIAMI, FLORIDA									
January	74	63	83	31	2.15	0.0	8	65	59
April	80	69	91	44	3.44	T	7	72	56
July	87	76	95	66	4.36	T	9	65	64
October	83	73	91	52	7.88	0.0	15	61	64
Annual	81	70	95	27	47.20	T	132	66	60
MIAMI BEACH, FLORIDA									
January	76	64	84	35	2.04	0.0	7	n.a.	n.a.
April	81	70	90	48	2.61	0.0	8	n.a.	n.a.
July	88	77	98	69	3.83	0.0	15	n.a.	n.a.
October	84	74	92	56	7.07	0.0	16	n.a.	n.a.
Annual	82	71	98	35	42.90	0.0	125	n.a.	n.a.

Month	Temperature				Precipitation			% possible sunshine	% relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
NASHVILLE, TENNESSEE									
January	49	31	78	−10	4.93	2.6	12	42	66
April	71	49	90	25	3.69	0.1	11	60	51
July	91	69	107	51	3.96	0.0	10	68	53
October	74	50	94	26	2.52	T	7	65	51
Annual	71	50	107	−13	45.03	8.4	120	59	56
NEW ORLEANS, LOUISIANA									
January	64	48	83	15	4.78	0.1	10	49	67
April	78	62	91	38	5.45	T	7	63	59
July	90	76	102	66	7.09	T	15	58	64
October	80	65	94	40	3.66	T	6	69	58
Annual	78	63	102	7	63.54	0.2	118	59	62
NEW YORK, NEW YORK (BATTERY PLACE)									
January	40	26	71	−6	3.46	7.6	12	51	62
April	58	42	91	12	3.22	1.0	11	60	54
July	82	67	102	54	4.24	TH	12	65	58
October	65	50	90	27	3.04	T	9	63	58
Annual	61	46	102	−14	42.03	30.4	126	60	59
PHOENIX, ARIZONA									
January	65	35	85	16	0.60	T	4	76	40
April	84	50	104	32	0.35	T	2	87	24
July	105	75	118	61	0.70	0.0	5	83	30
October	88	54	105	36	0.40	0.0	2	88	28
Annual	86	53	118	16	7.15	T	36	85	30
SALT LAKE CITY, UTAH									
January	36	17	60	−22	1.20	13.7	10	48	70
April	63	37	85	14	1.76	2.1	9	69	42
July	92	61	106	41	0.61	T	5	81	28
October	67	39	87	18	1.34	0.2	6	72	42
Annual	64	39	106	−30	14.74	50.1	86	69	46
SAN FRANCISCO, CALIFORNIA (CITY OFFICE)									
January	55	45	78	29	4.03	T	11	53	68
April	62	49	89	40	1.49	T	6	69	62
July	64	53	99	47	0.01	0.0	1	68	71
October	68	54	96	43	1.07	T	4	70	60
Annual	63	51	101	27	20.51	0.2	68	66	65
SEATTLE, WASHINGTON									
January	45	36	67	3	4.49	4.9	19	25	80
April	59	44	87	30	1.94	0.1	13	50	64
July	75	56	100	46	0.52	0.0	4	64	63
October	61	48	82	29	3.08	T	13	35	80
Annual	60	46	100	3	31.92	11.1	151	46	72
WASHINGTON, D. C.									
January	44	29	80	−14	3.41	6.1	11	46	56
April	65	45	95	15	3.20	0.4	11	57	45
July	87	68	106	52	4.11	0.0	11	64	52
October	68	49	96	26	2.97	0.1	8	61	50
Annual	66	48	106	−15	41.44	19.7	124	58	51

Recipes from Famous Steamship Lines

Last year our first recipe section opened the doors of world-famous restaurants to our readers. With this edition we go to sea on de luxe ocean liners and enjoy their gala food.

Captains' Dinners

ITALIAN LINE

Tagliatelle all'Andrea Doria

Calf's Sweetbreads alla Cristoforo Colombo

Zucchini alla Parmigiana

Green Salad

Zuppa Inglese

Tagliatelle all'Andrea Doria

- ¼ lb. fattish Italian ham, diced or cut in slivers
- 2 tablespoons butter
- 1 small onion, minced
- 1 small carrot, chopped fine
- 1 stalk celery, chopped fine
- ¾ lb. lean beef, ground
- ½ cup red wine
- 1 tablespoon tomato sauce or tomato paste
- ½ teaspoon salt
- ⅛ teaspoon pepper
- Dash nutmeg
- 1 small bay leaf
- 1 small clove garlic
- 1 cup beef or chicken stock
- 1½ lbs. egg noodles (about ¼" wide), cooked and drained
- 5 heaping tablespoons finest quality imported Parmesan cheese
- 1 cup heavy cream

Brown ham in bottom of heavy saucepan; add butter, onion, carrot and celery. When all is well browned, add meat. Cook meat until well browned. Add wine to meat; cook until it is absorbed. Add tomato sauce, salt, pepper, nutmeg, bay leaf and garlic. Cook sauce over low heat for 10 minutes, then add stock. Simmer covered 1½ hours. Remove garlic. Mix noodles with this sauce ("Salsa Bolognese"). Add cheese and cream. Place in greased shallow casserole. Brown lightly in 350° F. oven about 15 min. Makes 6 servings.

Calf's Sweetbreads alla Cristoforo Colombo

- 1 minced onion
- 1 finely chopped stalk celery
- 1 finely cut up small carrot
- 1 bay leaf
- 3 tablespoons butter
- 3 pair sweetbreads
- Flour (about ½ cup)
- ½ cup white wine
- 1 cup beef stock
- ½ teaspoon flour
- 1 teaspoon melted butter

Brown onion, celery, carrot and bay leaf in butter. Roll sweetbreads in flour, then place on top of browned vegetables; cook for about 5 minutes over high heat to brown quickly on each side. Add white wine and stock to sweetbreads and cook slowly about ½ hour. Remove sweetbreads from pan. Strain sauce. Combine ½ teaspoon flour and melted butter; stir into sauce. Cook stirring until smooth and thickened. Pour sauce over sweetbreads. May be served on semolina patty topped with slice of truffle. Arrange on platter surrounded by asparagus tips and miniature veal croquettes. Makes 3 servings.

Miniature Veal Croquettes

- ½ lb. finely ground veal
- 2 tablespoons heavy cream
- 2 tablespoons Parmesan cheese
- ¼ teaspoon salt
- ⅛ teaspoon pepper
- ½ cup white wine

Mash veal, then mix with cream, cheese, salt and pepper. Make tiny balls using

small spoon. Drop meat balls into greased pan; add wine. Cover pan with circle of waxed paper. Cover pan and bake at 325° F. for 6 or 7 minutes. They do not brown but stay white and get firm. Serve with calf's sweetbreads. (*See* page 45.)

Semolina Patties

½ cup farina
1 quart milk
¾ teaspoon salt
Pinch nutmeg
1 egg yolk, slightly beaten
3 tablespoons Parmesan cheese
3 tablespoons milk
Flour or bread crumbs
¼ cup butter

Cook farina as cereal in milk. Add salt and nutmeg. When cereal is thick and nearly done, beat in yolk as quickly as possible along with cheese and milk. (If you don't beat briskly, the egg will lump.) Cook 3 minutes more. Turn farina into flat pan about 1" deep. Cut out patties with doughnut cutter—about 2½" in diameter. Press any leftovers together to make another doughnut patty. Dredge patties in flour or bread crumbs. Sauté in a little butter. Makes 12 patties.

Zucchini alla Parmigiana

2 lbs. small firm zucchini (no larger than 1" in diameter)
3 tablespoons butter
¼ cup Parmesan cheese, grated

Cook zucchini in boiling salted water about 10 minutes or until they can be pierced with a fork (do not overcook). Drain. Cut into ½" thick slices. Simmer slices in butter about 10 minutes until lightly browned. Serve with cheese sprinkled on top. Makes 4 servings.

Zuppa Inglese

Custard sauce (*see* recipe next column)
2 4½-oz. packages of lady fingers (48)
About 1 cup liqueur (rum, Marsala, etc.)
½ cup cream, whipped
Maraschino cherries or candied fruit to garnish

Butter 1½-qt. pudding mold or casserole. Line mold with a layer of lady fingers soaked in liqueur, then spread with cooled custard; repeat until the mold is well filled. Cover with wax paper (put something heavy on it—like a dish—so that it will be pressed tight). Keep in refrigerator several hours before serving. To unmold, set in hot water for a minute or so. The "Zuppa Inglese" should slip out easily. Decorate with whipped cream and cherries or candied fruit. Makes 8 to 10 very rich servings.

Custard sauce:

½ cup granulated sugar
¼ cup all-purpose flour, sifted
A pinch of salt
2 cups scalded milk
4 egg yolks, slightly beaten
½ teaspoon vanilla

Combine sugar, flour and salt. Gradually stir in milk; beat until smooth. Add this milk mixture slowly to yolks, stirring constantly. Cook sauce in top of double boiler over hot (not boiling) water, stirring constantly until the mixture has thickened. Strain through fine sieve if mixture lumps. Add vanilla; cool.

AMERICAN EXPORT LINE

Green Turtle Soup

Roast Fillet of Beef, Farcie à la Wellington

Braised Celery with Marrow

Potatoes Suzette

Imperial Salad

Bombe Glacée Alhambra, Sauce Framboises

Green Turtle Soup (Double Consommé)

2 quarts rich beef or chicken consommé
½ cup Amontillado sherry

Over high heat, cook consommé until reduced to 1 quart. Remove from fire. Stir

in sherry. Season to taste with salt and pepper. Makes 4 servings.

Roast Fillet of Beef, Farcie à la Wellington

- 2 to 3½ pounds beef tenderloin (after trimming all fat)
- 6 shallots, finely chopped
- 2 tablespoons butter
- 1 clove garlic, minced
- 1 pound mushrooms, finely chopped
- 1 cup Béchamel (cream) sauce
- Salt and pepper to taste
- Pie dough based on 2 cups flour
- 1 egg, beaten

Bake tenderloin at 350° F. until very rare, about 30 to 35 minutes. Remove meat from oven; keep warm. Sauté shallots in butter. Just before brown add garlic and mushrooms and sauté for 10 minutes. Then add Béchamel sauce and seasoning. Spread meat completely with mushroom sauce mixture, and roll up in sheet of dough, being sure it sticks together. Brush dough with egg. Return to oven and bake at 425° F. until dough is golden (about 15 minutes). Let cool slightly before serving. Makes 6 to 8 servings.

Braised Celery with Marrow

- 4 medium-sized tender stalks celery
- 4 tablespoons butter
- 2 cups parboiled vegetable marrow, cut in thin strips
- 1 tablespoon finely chopped chives
- 1 tablespoon grated onion
- 1½ cups condensed consommé
- ½ cup blanched, shredded, toasted almonds

Thoroughly clean and scrape celery. Remove leaves, quarter lengthwise and place in saucepan with butter. Cover tightly; cook slowly until celery is tender. Shake pan frequently to prevent scorching. When celery is tender, add marrow; sprinkle with chives and onion. Add the consommé and the almonds and simmer for 15 minutes. Do not allow to scorch. Makes 4 to 6 servings.

Potatoes Suzette

- 6 large potatoes, baked.
- 2 tablespoons butter
- 2 tablespoons heavy cream
- 1 egg yolk, well beaten
- 6 tablespoons Parmesan cheese

When potatoes are done, cut in half lengthwise and scoop out pulp and mash. Add butter, cream and egg yolk. Beat together well. Return potato mixture to well buttered potato shells (reserve some of mixture to make rosettes around edges of potato shells). Sprinkle potatoes with cheese and bake in 425° F. oven 10 to 15 minutes or until golden brown. Makes 12 potato shells.

Imperial Salad

- 4 to 6 fresh cooked asparagus tips, chilled
- 1 tablespoon julienne of truffles
- Salad greens
- ¼ cup mayonnaise
- ½ teaspoon dry mustard

Arrange asparagus tips with truffles on greens. Combine mayonnaise and mustard. Spoon dressing over asparagus. Makes 1 serving.

Bombe Glacée Alhambra, Sauce Framboises

- 1 to 2 pints vanilla ice cream
- 6 egg yolks
- ½ cup granulated sugar
- 1 cup heavy cream
- 4 tablespoons imported Sherry

Chill a conical bombe or 1-quart mold. Line with ice cream 1½" thick, leaving a hollow in the center. Keep mold in freezer while you make Alhambra Mousse. Beat together egg yolks and sugar until thick and light in color. Add cream lightly whipped and Sherry. Beat over cracked ice until mixture becomes frothy. Pour into ice cream lined bombe. Cover with buttered paper; place lid on mold; freeze. Makes 8 servings. Serve with Sauce Framboises (see recipe page 48).

Variations: Instead of Sherry, use orange curaçao, chartreuse, cointreau, cherry brandy or peach brandy.

Sauce Framboises:

1 pint fresh raspberries, crushed
1 cup red currant jelly, melted
1 teaspoon cornstarch
2 tablespoons sherry

Mix together raspberries and jelly; bring to a boil. Mix cornstarch and sherry together to form a smooth paste. Stir paste into boiling juice and cook, stirring, until sauce is clear and thickened. Makes about 2 cups of sauce.

FRENCH LINE

La Soupe a l'Oignon

Le Bar Argent Poché Deux Sauces

Le Roti d'Agneau Prince Orlow

Les Asperges Chantilly

La Salade Aida

La Tarte Normande

La Soupe a l'Oignon
(Onion Soup)

1 quart very finely sliced white onions
¼ cup butter
1½ quarts consommé
1 teaspoon salt
¼ teaspoon pepper

In heavy soup pot, cook onions very slowly in butter until soft and golden but not brown. Add consommé and cook a few minutes. Season with salt and pepper. Serve with slices of toasted French bread and Parmesan cheese. Makes 4 to 6 servings.

Le Bar Argent Poché Deux Sauces

3 quarts water
½ cup vinegar
1 tablespoon salt
2 carrots
2 onions, sliced
6 sprigs parsley
Pinch thyme
1 bay leaf
8 peppercorns
1 6- to 8-lb. striped bass (or other large fish)
2 cups Hollandaise sauce
¼ cup melted butter
2 tablespoons lemon juice
Boiled potatoes (8 to 10 small)
Parsley

Prepare a court bouillon by combining water, vinegar, salt, carrots, onion, parsley, thyme, bay leaf and peppercorns. Cook for 1 hour; strain. Place fish in the rack of a fish kettle (or tie it in to a thin narrow board to keep it flat, and place in roasting pan). Cover fish with court bouillon and simmer 20 to 30 minutes or until fish is done. Serve with Hollandaise sauce and butter combined with lemon juice. Garnish fish with boiled potatoes and sprigs of parsley. Makes 8 servings.

Le Roti d'Agneau Prince Orlow
(Roast Lamb Prince Orlow)

5- to 6-lb. leg of lamb, boned
1 cup water
1 lb. mushrooms, chopped very fine
1 teaspoon lemon juice
1½ cups Béchamel sauce (cream sauce)
½ teaspoon salt
⅛ teaspoon pepper
Dash nutmeg
1 tablespoon butter
2 tablespoons heavy cream
6- to 8-oz. truffle, sliced very thin
1 cup slivered Pistachio nuts

Roast lamb in 425° F. oven about 30 minutes. (It should be pink inside.) Remove lamb from pan and cool 30 minutes. Add water to juices in pan and cook about 5 minutes; season to taste with salt and pepper. Set aside and keep hot. Meanwhile prepare mushroom purée:

Sprinkle mushrooms with lemon juice. Combine mushrooms and Béchamel (cream) sauce. Cook until mixture is thick. Rub mushroom mixture through a fine sieve or Foley food mill. Season with salt, pepper and nutmeg. Reheat with butter and cream; cool.

Cut lamb horizontally in very thin slices. Spread each slice with mushroom purée, then reform (or reassemble) lamb. On every other slice put very thin pieces

of truffle, and on the alternate slices the nuts. Spread surface with mushroom purée. Bake in a 300° F. oven (allow about 35 minutes per lb.). If necessary, when almost done, increase heat to 400° F. to brown surface. Makes 10 to 12 servings. Serve with pan juices.

Les Asperges Chantilly
(Asparagus Tips Chantilly)

- 3 lbs. fresh asparagus
- 1 cup mayonnaise
- ¼ cup heavy cream, whipped
- Sprigs of parsley

Use only the tips of asparagus. Cook in 1" boiling salted water until tender. Drain asparagus thoroughly. Combine mayonnaise and heavy cream. Serve garnished with parsley. Pass mayonnaise mixture. Makes 8 servings.

La Salade Aida

- 1 quart cleaned white hearts of chicory
- 4 peeled, chilled tomatoes, cut up
- 2 sliced artichoke hearts
- 1 medium green pepper, cut in slivers
- 2 hard cooked eggs, chopped
- 1 cup French dressing
- 1 teaspoon dry mustard
- 1 teaspoon finely chopped green olives
- 1 teaspoon chopped capers
- 1 teaspoon chopped chives
- 1 teaspoon minced parsley

In salad bowl combine chicory, tomatoes, artichoke hearts and green pepper. Sprinkle egg on top. Combine French dressing with mustard, olives, capers, chives and parsley. Pour dressing over salad. Toss well. Makes 4 to 6 servings.

La Tarte Normande

- ½ lb. chilled butter
- 2 cups sifted flour
- ½ teaspoon salt
- ½ cup ice water
- 3 to 4 cups quartered tart apples, peeled and cored
- ½ cup sugar
- ½ teaspoon cinnamon
- ¼ teaspoon nutmeg
- 1 egg yolk
- ¼ cup heavy cream
- 2 to 3 tablespoons old Calvados
- ½ cup apricot jam, melted

Divide butter into 3 equal parts and flatten them. Refrigerate two of the pieces of butter. Combine flour and salt and work into the third piece of butter with a pastry blender. Add just enough water to make a dough. Knead dough just enough to form into a ball. On a lightly floured board, roll dough into a rectangle ¼" thick. Place second piece of butter in center of dough. Fold top of dough over butter, bottom of dough up over the covered butter; press edges together. Chill ½ hour. Remove from refrigerator and roll thin. Place third piece of butter in center of dough and repeat the process, folding, etc. On a greased baking sheet press chilled dough into ¼" oblong. Coat apples with mixture of sugar, cinnamon and nutmeg. Set apples in rows on dough. Bake at 375° F. for 15 minutes. Combine egg yolk and cream; pour over apples. Continue to bake tarte until crust is golden brown, apples tender (about 20 minutes—depending on apples). Sprinkle with old Calvados. Spread with jam. Makes 6 to 8 slices.

SWEDISH AMERICAN LINE

Consommé Talleyrand

Fillet of Sole Meunière, Pommes Vapeurs

Home-Cured Duckling

Red Cabbage, Sweet and Sour

Potato Croquettes

Parfait Kungsholm

Consommé Talleyrand

- 1 egg, slightly beaten
- 2 tablespoons water
- ½ teaspoon salt
- ½ teaspoon paprika
- 1 teaspoon melted butter
- ¾ cup sifted all-purpose flour
- ¾ teaspoon double acting baking powder
- Double consommé (*see* recipe page 47)
- ½ cup cooked rice

Blend together egg, water and seasonings. Add butter and flour sifted with baking

powder. Heat together soup and rice. Drop batter from tip of teaspoon into boiling soup, cover, reduce heat and simmer 12 to 15 minutes. Makes 4 servings.

Fillet of Sole Meunière, Pommes Vapeur

4 fillets of sole
3 to 4 tablespoons butter
Salt and pepper to taste
1 lemon
Chopped parsley

Melt butter in skillet until hot but not brown. Sauté fillets in butter until cooked (3 to 5 minutes). Sprinkle with lemon juice and garnish with parsley and lemon slices. Serve with small boiled potatoes. Serves 4.

Home-Cured Duckling

1 4- to 5-pound drawn duckling
Brine to cover
3 or 4 sprigs each of parsley, dill, celery tops
1 tablespoon horseradish (freshly grated)
½ cup heavy cream, whipped

For brine, allow 1 tablespoon salt to a quart of water. Marinate duck in brine with greens 4 days in refrigerator. Roast in 325° F. oven, allowing 45 minutes per pound. Serve cut in sections. Combine horseradish and cream and pass at table. Makes 4 servings.

Red Cabbage, Sweet and Sour

1 2½ pound head red cabbage, shredded
¾ cup boiling water
3 tablespoons butter
2 tablespoons minced onion
2 apples cut in thin slices
1 teaspoon salt
¼ cup dry red wine
¼ cup brown sugar

Sauté the onion in the butter until tender. Add cabbage and apple. Cover the pan and cook over low heat for 10 minutes. Add the wine and sugar and continue cooking over low heat for at least an hour, adding the boiling water as needed to prevent scorching. Serves 4 to 6.

Potato Croquettes

2 cups mashed potatoes
2 eggs, well beaten
Oil or vegetable shortening sufficient for deep frying

Mix eggs into mashed potatoes. Form into balls about the size of a lemon. Pre-heat shortening (360°–370°) and fry croquettes until golden brown. Makes about 8 croquettes, or 4 servings.

Parfait "Kungsholm"

1 pint vanilla ice cream
¼ to ½ cup of cordial (fruit brandy or other cordial)

Soften but do not melt ice cream. Combine with cordial. Spoon into parfait glasses and place in freezer until ready to serve.

CUNARD LINE

Agnes Sorel Soup

Veronique Fillets of Sole

Lamb Chops Reforme

Double Pear Salad

Strawberry Shortcake

Agnes Sorel Soup
(Chicken and Mushroom)

1 minced onion
2 tablespoons chopped shallots
2 tablespoons butter
2 tablespoons flour
1 qt. boiling chicken stock
1 cup sliced mushrooms
¼ cup each julienne of ham, chicken, smoked tongue
½ cup cream
2 egg yolks

Cook onions and shallots gently in butter for a few minutes. With a wooden spoon, stir in flour until smooth. Place flour mixture in a 350° F. oven for about ¾ of

an hour, stirring now and then so that the "roux" will not brown. Remove from oven and cook, slowly adding stock, stirring constantly. Add mushrooms, ham, chicken and tongue to soup and cook slowly for 1 hour. Just before serving, combine cream and egg yolks; slowly add to soup while stirring. Makes 6 servings.

Veronique Fillets of Sole

- 6 fillets of sole*
- ¼ cup finely chopped shallots
- ½ cup white wine
- Few drops lemon juice
- About ¼ cup fish stock
- 3 tablespoons butter
- 1 tablespoon heavy cream
- ½ to 1 cup muscatel grapes

Fold sole and season with salt and pepper. Place in buttered earthenware dish. Sprinkle shallots, wine and lemon juice over sole. Add fish stock. Cover fillets with buttered paper and bake at 350° F. about 15 minutes or until just done. Very carefully drain fillets, reserving liquid. Reduce fish liquid to consistency of syrup; add butter and cream. Arrange pieces of fish in a circle in the dish (leave a space in the center). Place a pyramid of grapes in the center; cover with sauce. Place dish under the broiler until sauce is tinged with brown and bubbles.

Fish stock:

- Bones from 6 fillets of sole
- 2 roots of parsley
- 2 medium onions
- 1 qt. water
- 1 teaspoon salt

Combine all ingredients and bring slowly to boil, removing scum as it accumulates. Simmer gently for 3 hours; then strain.

* Have fish dealer give you bones to use for stock.

Lamb Chops Reforme

- 1 cup red currant jelly
- 8 peppercorns, crushed
- ⅓ cup vinegar
- 1 cup brown sauce (*see* next column)
- 6 lamb chops
- ¾ cup flour
- 1 egg, beaten
- ¾ cup fresh bread crumbs
- 1 tablespoon each finely chopped parsley and chives
- ¼ teaspoon salt
- ⅛ teaspoon pepper
- ¼ cup salad oil

Combine jelly, peppercorns and vinegar; cook over low heat until practically dry. Add brown sauce. Cook for ½ hour and strain. Meanwhile dip cutlets in flour, then egg, then bread crumbs mixed with parsley, chives, salt and pepper. Fry slowly in oil until golden brown on both sides. To serve, place a thick layer of sauce on serving platter and arrange meat on top. Pass remaining sauce. Makes 6 servings.

Brown Sauce:

- 2 tablespoons butter
- 2 tablespoons flour
- 2 cups beef consommé

In a saucepan melt butter, add flour. Cook slowly, stirring until thoroughly blended and turns a light brown color. Add broth gradually, stirring. Bring sauce to a boil; cook 3 minutes, then lower heat and simmer gently 30 minutes, stirring occasionally. Skim off any fat and strain through a fine sieve. Makes 2 cups.

Double Pear Salad

- ½ avocado, sliced and quartered
- 1 pear half, cut in 3 segments
- 4 Romaine leaves
- 1 to 2 tablespoons soft cream cheese
- Bar-le-Duc or red currant jelly
- 2 or 3 tomato slices

Alternate slices of avocado and pear on romaine leaves; top with cream cheese; dab with jelly. Use tomatoes for garnish. Makes 1 serving.

Strawberry Shortcake

- 1 cup butter
- 1 cup plus 3 tablespoons granulated sugar
- 5 eggs
- 2½ cups sifted cake flour
- 1 teaspoon baking powder
- 1 pint whipped cream
- 1 quart strawberries, washed and hulled

Cream butter and sugar together. Add eggs one at a time, beating well after each addition. Stir in flour and baking powder which have been sifted together. Pour into greased 13" x 9" x 2" pan. Bake in oven at 375° F. for 30 minutes, or until done. Split cake while still warm. When

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cool, fill with strawberries and cream. Top can also be decorated with berries and cream.

HOLLAND-AMERICA LINE

Lobster Cocktail

Petite Marmite Henri IV

Leidsche Hutspot met Klapstuk

Griesmeel Pudding

Lobster Cocktail

- ⅔ cup cold cooked lobster, cut in cubes
- 1 tablespoon catchup
- 1½ teaspoons lemon juice
- Dash Worcestershire sauce
- Few drops Tabasco
- 1 teaspoon minced celery
- 1 teaspoon minced chives
- Pinch salt
- 2 tablespoons mayonnaise
- 1½ teaspoons brandy
- Dash paprika
- Chopped parsley

Mix all ingredients together except paprika and parsley. Chill well. Serve very cold in cocktail glass decorated with paprika and parsley. Makes 1 to 2 servings.

NOTE: 1 lb. lobster in shell yields about ⅔ cup cooked diced meat.

Petite Marmite Henri IV

- 1 lb. beef bones
- 3 quarts water
- 2½ quarts beef rump
- 1 4- to 5-lb. ready-to-cook stewing chicken
- 3 carrots, sliced
- 2 small turnips, sliced
- 6 leeks, sliced
- 1 large onion studded with cloves
- 1 medium onion, sliced
- 1 stalk celery, sliced
- 1 bouquet garni (tie together 1 stalk celery, parsley, thyme and bay leaf)
- 1 tablespoon salt
- Grated Parmesan cheese
- Slices of French bread

Place bones and water in large soup kettle. Bring to boil and simmer gently as long as possible (3 to 4 hours). Skim carefully. Strain bonestock into a basin through a cloth wrung out in cold water. Refrigerate until next day. Then remove any fat on surface of soup. Warm the stock; add meat and fowl. Bring soup slowly to boil and skim until all scum is removed (during the skimming, a few tablespoons of cold water may be added occasionally to make scum rise to surface). Add vegetables, salt and bouquet garni. Partially cover kettle (allow 1½" for steam to escape—this helps keep stock clear). Simmer gently 3½ hours, or until meat is quite tender. Remove meat, cut it into pieces. Serve in the stock with the vegetables. Pass cheese and French bread slices. Makes 10 to 12 servings.

Leidsche Hutspot met Klapstuk

(Boiled Beef with Vegetables)

- 6 medium onions, sliced
- 6 carrots, sliced
- 6 medium potatoes, sliced
- 4 lbs. fresh boiled brisket of beef

Cook onions and carrots in 1" boiling salted water until nearly done. Add potatoes and cook until done. Drain. Mash vegetables together. Place on big platter with sliced brisket of beef on top. Makes 4 to 6 servings.

Griesmeel Pudding

- 1⅔ cups milk
- ¼ cup regular farina or cream of wheat
- ¼ teaspoon salt
- 2 to 4 tablespoons granulated sugar
- 5 egg whites, beaten stiff
- ½ teaspoon vanilla extract or ¼ teaspoon almond extract
- 1 cup red currant jelly

Bring milk to boil. Very slowly shake in cereal, stirring constantly; add salt and sugar and cook, stirring until mixture is thick—about 10 to 15 minutes. Cool slightly. Fold egg whites into cereal, add extract and chill. Serve with melted red currant jelly, "Bessensnap." Makes 4 servings.

MISCELLANEOUS RECIPES

Three Sauces for Spaghetti

(Italian Line)

White Marinara Sauce

- ½ pound raw shrimp, tiny ones, cut up
- ½ pound raw baby clams, chopped
- ¼ cup olive oil
- 2 cloves garlic, minced
- 2 teaspoons capers
- ½ teaspoon flour
- ½ cup white wine (or more, to taste)
- ¼ cup parsley, chopped

Brown shrimp and clams in oil. When golden, add garlic. Cook until garlic is colored, then add capers and flour. Simmer, stirring 1 minute. Add wine and cook 10 minutes over low heat, stirring (don't let it dry out). Add parsley. Makes 5 servings.

Nut Sauce

- ½ pound shelled walnuts, chopped
- ¼ pound shelled pinoli nuts, chopped
- 2 tablespoons olive oil
- 1 tablespoon butter
- 1 cup cream
- ¼ teaspoon salt
- ⅛ teaspoon pepper
- 2 tablespoons butter
- Parmesan cheese (optional)

Brown nuts in oil and 1 tablespoon butter until golden. Add cream, salt and pepper; bring to boiling point. Remove from fire and add 2 tablespoons butter in one lump; stir until it melts. Makes 10 servings. Pass cheese.

Tuna Fish Sauce

- 1 small onion, minced
- 1 clove garlic, mashed
- 2 tablespoons butter
- 1 can tuna fish, drained and flaked
- 1 teaspoon flour
- ½ cup white wine
- ¼ cup parsley, chopped

Brown onion and garlic in butter until golden; add tuna. Cook fish 3 min., then sprinkle with flour. Stir smooth and cook until it browns. Add wine to fish and cook, stirring until smooth and thickened. Add parsley. Makes 3 servings.

Beef à la Lindstrom

(Swedish American Line)

- 1¼ lbs. ground beef
- 1 cup finely chopped cold boiled potatoes
- ½ cup diced pickled beets
- 3 egg yolks
- 1 small onion, finely chopped
- 1 tablespoon capers
- 1 teaspoon salt
- ¼ teaspoon pepper
- 2 to 3 tablespoons butter or lard

Mix beef, potatoes, beets, yolks, onion, capers, salt and pepper thoroughly. Shape into individual loaves or patties and fry in hot butter or lard until nicely browned. Makes 6 servings.

Kletskoppen (Almond Cookies)

(Holland-America Line)

- 1½ cups brown sugar
- 2 tablespoons water
- ¼ cup soft butter
- 1 teaspoon cinnamon
- 1 cup blanched, ground almonds
- 1 cup sifted all-purpose flour

Mix sugar and water to make a thick paste. Add butter, cinnamon, almonds and flour. Work mixture with hands and shape into small balls about 1" in diameter. Place balls of dough on a baking sheet (greased with unsalted fat) at least 2" apart. Bake about 15 minutes in 325° F. oven. Remove from oven and let stand ½ minute. Lift cookies from baking sheet with a spatula. If wafers become too hard to take off easily, return to oven for 1 minute and then remove. Makes 4 doz.

Chilled Madrilène

(French Line)

- 1 quart hot beef consommé
- 4 tomatoes, cut up
- 1 cup chopped celery tops
- 2 to 3 leeks, cut up
- 1 egg white
- 1 cup chopped pulp of tomato
- ¼ cup chopped pimento

Combine consommé with tomatoes, celery tops, leeks and egg white. Simmer 1 hour. Strain through several thicknesses of fine cheesecloth; cool. Remove any fat. Stew tomato pulp a few minutes; chill. Serve

consommé garnished with tomato pulp and pimento. Makes 4 to 6 servings.

Gateau Surprise with Loredan Sauce

(American Export Line)

- 2 9″ sponge-cake layers
- 3 pints ice cream
- 2 pints blueberries
- ½ cup sauterne

Split cake layers. Place bottom layer on wax paper, spread 1 pint of ice cream between each two layers. Freeze until firm, then freezer wrap and put back in freezer. Before serving thaw in refrigerator about 1 hour. *Loredan Sauce:* Crush, then strain blueberries and add sauterne. Serve sauce with slices of gateau. Makes 10 to 12 servings.

Gevulde Kool (Stuffed Cabbage)

(Holland-America Line)

- 1 large firm head cabbage
- 2 cups cooked ham, diced
- 2 cups cooked rice
- 1 egg, slightly beaten
- ⅛ teaspoon mace
- ⅛ teaspoon poultry seasoning
- 1 tablespoon butter, melted
- ¾ teaspoon salt
- ⅛ teaspoon pepper
- Patapar paper
- 1 tablespoon chopped parsley

Cut off top of cabbage and scoop out center leaving a large hole. Combine ham, rice, egg, mace, poultry seasoning, butter, salt and pepper. Mix well. Use mixture to fill cabbage ¾ full. Put cabbage top back in place. Tie cabbage with moistened sheet of Patapar paper. Steam for 1 hour. Remove paper. Serve garnished with chopped parsley. Makes 4 to 6 servings.

Chicken Breast Virgilio Style

(Italian Line)

- 1 chicken breast
- 2 small slices bacon
- ¼ cup very finely chopped mushrooms (drained canned mushrooms may be used)
- 2 teaspoons butter
- ¼ cup white wine
- ½ cup cooked thin noodles
- 2 teaspoons grated Parmesan cheese

Sauté mushrooms in 1 teaspoon of the butter. Bone chicken breast leaving enough skin attached so that it can be filled with bacon and mushrooms. Sew the skin closed and sauté the stuffed chicken in remaining teaspoon of butter. When chicken is golden brown on all sides, add white wine; cook covered until tender. To serve, remove thread from chicken breast and place chicken on bed of hot noodles sprinkled with cheese. Makes 1 serving.

Sauce Dieppoise

(Holland-America Line)

- ½ cup butter
- ½ cup all-purpose flour
- 1½ cups fish stock (*see* recipe page 51)
- 1 teaspoon salt
- 1 teaspoon pepper
- 2 egg yolks, slightly beaten
- ½ cup cooked, cleaned shrimp
- ½ cup fresh mushrooms, cut up

Melt butter, stir in flour until well blended. Stir in hot fish broth and cook about 30 minutes stirring occasionally. Add seasonings to sauce, then pour some of sauce over yolks, beating constantly. Add shrimp and mushrooms to sauce and cook about 5 minutes longer. Spoon over toast or Holland rusk. Makes 2 to 3 servings.

Swedish Meat Balls

(Swedish American Line)

- 1 lb. ground beef, lean
- ¼ lb. ground pork
- 6 oz. ground veal
- 1 medium onion, minced
- ½ cup water
- ½ cup cream
- ½ cup zwieback crumbs
- 1¼ teaspoons salt
- ⅛ teaspoon pepper
- 2 tablespoons butter
- 3 tablespoons flour
- 1 teaspoon salt
- 1 teaspoon sugar
- Dash pepper
- 1 cup water
- ¾ cup light cream

Mix together first 9 ingredients and form into balls 1¼″ in diameter. Fry slowly in butter. Remove browned balls; keep warm in casserole. Into fat in skillet, stir flour, then salt, sugar and pepper. Add water and cream slowly; stir until thickened.

Pour over meat balls. Makes about 6 servings.

Leeks with Grated Cheese

(Italian Line)

- 2 dozen medium-size leeks
- 5 tablespoons butter
- ¼ cup grated Parmesan cheese

Remove green part of cleaned leeks, leaving only 1" above white part. Cook as you would asparagus in boiling salted water until tender (do not overcook). Drain well. Place leeks in saucepan (preferably one that can be used to serve from) where butter has been melted. Simmer leeks in butter. Line up on serving dish like asparagus. Just before serving, sprinkle leeks with cheese. Makes 3 to 4 servings.

Peasant Soup

(Cunard Line)

- 3 tablespoons butter
- 3 or 4 small carrots, cut in 4
- 1 cup onions, cut up
- 1 small white turnip, cut in cubes
- 2 stalks celery, cut up
- 6 small leeks, cut fine
- 1 small head cabbage, shredded
- 2 large potatoes, diced
- 1 cup leftover meat, cubed (ham, beef, lamb, salt pork)
- ¼ lb. mushrooms, sliced
- 1 clove garlic, minced
- 1 tablespoon chervil, chopped
- 1 quart stock (beef or chicken)
- 2 teaspoons salt
- ¼ teaspoon pepper
- Bread croutons (optional)

Melt butter in soup pot, then add carrots, onions, turnips, celery, leeks, cabbage, potatoes, meat, mushrooms, garlic and chervil. Keep stirring ingredients with wooden spoon but do not brown. Cook until onions are light golden. Add stock; bring to boil and let simmer for 1 hour. Season to taste with salt and pepper. Nice served with croutons. Makes 8 servings.

Chateaubriand all'Andrea Doria

(Italian Line)

- ½ lb. filet mignon (cut from thickest part of filet)
- Salt to taste
- Pepper to taste
- 2 teaspoons butter
- 1 fresh sage leaf
- 1 teaspoon Marsala wine
- 1 semolina patty (*see* recipe page 46) or toast slice
- 1 fried sliced onion
- 1 cube paté de foie gras
- 1 slice black truffle

Sprinkle filet with salt and pepper. Simmer filet for about 10 minutes in butter along with sage leaf. When filet is nearly cooked, add wine. Serve on semolina patty topped with fried onion slices, paté and truffle. Cover with juices from pan in which filet was cooked. Makes 1 serving.

Corn Muffins

(Holland-America Line)

- ¼ cup soft butter
- ½ cup granulated sugar
- 2 eggs, separated
- 1 cup cornmeal
- 1 cup all-purpose flour
- 4 teaspoons baking powder
- ½ teaspoon salt
- 1 cup milk

Cream butter with sugar and egg yolks until light and fluffy. Stir in flour which has been mixed and sifted with cornmeal, baking powder and salt. Stir in milk. Fold in stiffly beaten egg whites. Bake in greased muffin tins in 425° F. oven for about 25 minutes or until done. Makes 12 muffins.

Le Canard en Compote aux Petits Pois

(French Line)

- 1 4- to 5-lb. drawn duck
- 1 cup water
- ½ cup diced salt pork, parboiled
- 2 cups tiny white onions, parboiled
- 3 tablespoons butter
- 2 cups cooked peas

Roast duck until very tender (allow approximately 45 minutes per lb. in 325° F. oven). Remove roasted duck from pan (leave whole or cut in quarters). Remove fat and add water to juices in pan. Cook salt pork and onions in butter until golden brown. Place duck, salt pork, onions and peas in roaster; cover and simmer about 10 minutes. Makes 4 servings.

Potatoes Caucho

(Holland-America Line)

- 2 tablespoons butter
- 2 tablespoons all-purpose flour
- 1½ teaspoons salt
- ¼ teaspoon pepper
- ½ teaspoon dry mustard
- 2 cups milk
- 4 cups cold boiled potatoes, diced
- 1 teaspoon paprika
- 4 tablespoons chopped green pepper
- 3 tablespoons chopped pimento
- 2 tablespoons chopped onion
- 3 tablespoons drained canned tomatoes

Melt butter and add flour, salt, pepper and mustard, stirring to smooth paste. Gradually add the milk to flour mixture, stirring constantly; cook till smooth and thickened. Add potatoes and paprika to sauce; heat through and add chopped vegetables and tomatoes. Heat again. Serves 8.

Piedmontese Minestrone

(Italian Line)

- 2 tablespoons olive oil
- 1 tablespoon butter
- 1 lb. salt pork, chopped
- 2 cloves garlic, minced
- 1 onion, minced
- Salt to taste
- Pepper to taste
- 1 small head cabbage, shredded
- 2 small potatoes, diced
- 2 zucchini, diced
- 1 cup green beans, cut in small pieces
- 2 carrots, sliced
- 1 cup shelled peas
- 1 stalk celery, diced
- 1 cup cooked chick peas
- 1 tablespoon tomato paste
- 1 tablespoon minced basil leaves
- 1 tablespoon rosemary
- 1½ quarts stock
- 1 tablespoon chopped parsley
- 1 cup rice
- 2 tablespoons grated Parmesan cheese

Place olive oil and butter in large soup pot. Add salt pork, garlic, onion, salt and pepper and brown a little. Then add all vegetables and remaining ingredients, except rice and cheese. Cook soup slowly for 30 minutes; add rice and cook 20 minutes longer. To serve, sprinkle with grated cheese.

Lobster Delmonico

(Cunard Line)

- 1 cooked lobster (1½-2 lbs.)
- 10-12 cooked prawns (or shrimps)
- A few peppercorns
- 1 tablespoon tarragon vinegar or a few tarragon leaves
- 1 tablespoon chopped shallots
- 1 cup white wine
- 3 egg yolks, beaten
- ¼ cup melted butter
- Salt to taste
- Dash cayenne
- A sprig of tarragon, chopped
- Truffle
- Parmesan cheese

Split cooked lobster lengthwise, take out the meat (also take the meat from the claws by cracking them). Wash and clean the shells thoroughly and place upside down to drain. Cut the lobster meat in slices, slice prawns and season.

To make devilled Béarnaise sauce, crush a few peppercorns with vinegar or tarragon leaves; add chopped shallots and wine. Cook until practically dry. Remove from fire and let the pot get cold, then add egg yolks. Cook over boiling water, stirring constantly until it has the consistency of heavy cream. Very slowly add melted butter to egg mixture along with a little salt and cayenne. Add chopped tarragon.

Put a bed of sauce in the bottom of the lobster shells. Add alternate slices of lobster, prawns and truffle on top. Cover with sauce and sprinkle with Parmesan cheese. Place under broiler until mixture bubbles and is tinged with brown. Makes 2 servings.

Creamed Noodles Lyonnaise

(Holland-America Line)

- ½ cup minced onion
- ¼ cup butter
- ¼ cup flour
- 2 cups milk
- ½ teaspoon salt
- ⅛ teaspoon pepper
- Dash nutmeg
- ½ lb. noodles, cooked

Sauté onions in butter until golden brown. Add flour and stir until smooth. Add milk, stirring constantly and continue to cook until sauce is thickened and smooth. Add seasonings and noodles. Makes 4 to 6 servings.

Sailors' Beef "Stockholm"

(Swedish American Line)

- 1 3/4-lb. round steak
- Flour to dredge
- 1 tablespoon butter (or lard)
- 2 large onions, sliced
- 2 teaspoons salt
- ¼ teaspoon white pepper
- 1 3/4-lb. potatoes, sliced
- 1½ cups bouillon or equal parts of water and pilsner

Slice beef in strips ½" thick. Dip in flour, then brown in butter in Dutch oven. Add onions, salt, pepper, potatoes and liquid to cover. Simmer slowly until potatoes are cooked, 20 to 30 minutes. Makes 6 servings.

Risotto alla Milanese

(Italian Line)

- 1 medium onion, minced
- 2 tablespoons butter
- 1 lb. good quality rice
- ½ cup dry white wine
- About 2 quarts boiling chicken or beef stock
- Salt to taste
- 1 pinch saffron
- 1 tablespoon butter
- 2 tablespoons grated Parmesan cheese

Brown onion in about 2 tablespoons butter. When onion is golden brown, remove from pan; add rice. Stir so that rice doesn't stick to saucepan. When rice has been coated, add ½ cup wine (or enough to cover); then little by little (about ½ cup at a time) continue to add stock. Cook covered until risotto has consistency of hot cereal (like oatmeal mush). After 15 minutes, add salt to taste and saffron. When rice is cooked, remove from fire; add remaining butter, 2 tablespoons cheese and the cooked onion. Serve immediately with more cheese on the side. Makes 6 servings.

Buttermilk Biscuits

(Holland-America Line)

- 2 cups sifted all-purpose flour
- 1 tablespoon granulated sugar
- ¼ teaspoon baking soda
- 2½ teaspoons baking powder
- ½ teaspoon salt
- ⅓ cup margarine
- ¾ cup buttermilk or sour milk

Sift together flour, sugar, soda, baking powder and salt. Add margarine; work with pastry blender until the consistency of coarse corn meal. Blend in buttermilk. Divide dough into 2 portions. On a floured board or pastry cloth, pat out each half until it is round and about ½" thick. Cut into 4 wedges and place on greased cookie sheet. Bake in 425° F. oven for 20 minutes or until golden brown on top. Split with fork. Spread with butter; serve hot with jam or marmalade. Makes 8 wedges.

Soffiatini alla Sorrentina

(Italian Line)

- 1 lb. veal cutlet, cut in very thin slices
- 2 or 3 slices Mozzarella, Bel Paese or Fontina cheese
- Salt to taste
- Pepper to taste
- About ¼ cup flour
- 2 tablespoons butter
- 2 tablespoons oil
- Tomato sauce

Pound veal until it is very thin. Then match slices in pairs about 2" in diameter. On one slice of veal place a slice of cheese (cut cheese a shade smaller than meat slice), then cover with other slice of veal, securing edges with toothpicks. Coat with flour mixed with salt and pepper. Repeat until all slices are used up. Simmer the meat patties in butter and oil being careful that they do not open at edges. Serve with tomato sauce. Makes 3 or 4 servings.

Stuffed Cabbage "Kungsholm"

(Swedish American Line)

- ¼ cup raw rice
- 1 cup boiling water
- 1 cup milk
- 1 medium head white cabbage
- ⅓ lb. ground beef
- ¼ lb. ground veal or pork
- 2 eggs
- 1 small onion, finely chopped
- 2 tablespoons brown sugar
- 2 cups beef bouillon (use 2 beef bouillon cubes and 2 cups boiling water)
- 1½ tablespoons flour
- ½ cup light cream

Very slowly add rice to boiling water and simmer uncovered 10 minutes or until

water is absorbed. Add 1 cup milk and cook over low heat 30 minutes or until rice is tender, stirring occasionally. Cool. Meanwhile cook cabbage in boiling salted water until leaves separate. Choose about 12 of the largest leaves; cut away thickest part of vein. For filling mix rice, beef, veal, onion, eggs, salt and pepper together and divide mixture so that there is one part for each leaf to be filled. Roll up each leaf securely around filling. Brown cabbage rolls in butter in Dutch oven, then add sugar and bouillon; simmer covered 1 to 1¼ hours. Remove rolls to serving platter. Mix together flour and cream; stir into juice in Dutch oven. Cook stirring 10 minutes longer. Pour over rolls. Makes 4 to 6 servings.

Consommé Stracciatella
(Italian Line)

- 2 teaspoons all-purpose flour
- Salt to taste
- Pinch nutmeg
- 2 eggs
- 3 cups consommé
- Grated Parmesan cheese (optional)

Put flour, salt and nutmeg in a bowl; add eggs and beat well. Pour mixture into boiling consomme through a collander with large holes, stirring so that lumps do not form. Cook about 15 minutes. Serve immediately with cheese on the side.

Runderlappen
(Holland-America Line)

- 2 lbs. round steak
- 2 small veal kidneys
- 8 tablespoons flour
- ½ teaspoon ginger
- 1 teaspoon salt
- ½ teaspoon allspice
- 2 to 3 tablespoons oil
- 1 teaspoon prepared mustard
- 1 tablespoon Worcestershire sauce
- 4 onions, cut up

Cut steak and kidneys in small pieces. Mix flour, ginger, salt and allspice; roll meat in mixture. Brown meat in hot oil in Dutch oven, then add mustard and Worcestershire sauce. Cover with boiling water and simmer 3 hours. Add onions and cook 1 hour longer. Makes 6 to 8 servings.

La Poularde en Cocotte Morvaldelle
(French Line)

- 1 4-oz. can sliced mushrooms, drained
- ¼ cup diced salt pork
- 2 tablespoons butter
- 1 2-lb. ready-to-cook roasting chicken
- 1 cup raw potato balls
- 1 cup carrots, sliced
- ¼ cup white wine
- 1 tablespoon chopped parsley

In Dutch oven, cook mushrooms and salt pork in butter until golden brown. Brown chicken. Add potatoes and carrots. Cook covered over low heat about 35 minutes or until bird is well done and vegetables tender. Remove to deep serving dish. Add wine to juices in pan. Cook over high heat until liquid is reduced to one-half original amount; pour around chicken. Garnish with chopped parsley. Makes 4 servings.

Nasi Goreng
(Indonesian Rice Dish)
(Holland-America Line)

- 4 cups cooked rice (cooked until dry)
- 1 teaspoon sambal oelek or red pepper
- ¼ cup butter
- 1 lb. onions, cut up
- ½ lb. French celery or Chinese cabbage, cut up
- ½ lb. leeks, cut up
- ½ lb. cooked shrimp, cut up
- 1 lb. cooked pork, cut in 2″ cubes
- ½ lb. cooked ham, cut in 2″ cubes
- 2 to 3 tablespoons butter

Fry rice with sambal in ¼ cup butter. Meanwhile, sauté onion, celery, leeks, shrimp and meat in remaining butter. Mix well with fried rice. Makes 5 to 6 servings. Serve with omelet, droepoek (or potato chips) and catchup.

YOUR FAMILY NAME—WHAT DOES IT MEAN?

by ELSDON C. SMITH

Former President, American Name Society

DURING the 11th to the 17th centuries, our modern family names came into use. At first they were merely temporary descriptive words employed to distinguish one John or William from another. As countries became more thickly populated and as people traveled more, single names became inadequate. The ordinary villager needed an additional name perhaps only three times during his life: when he paid the fine due the lord of the manor upon inheriting or receiving his land, when he received permission to marry, and upon his death, when the lord received his best chattel. These were the occasions that had to be recorded properly by the clerk.

Practically all hereditary family names in the Western world originated in one of the following four ways:

1. From a place name; that is, one who came from, or lived or worked near, a place or topographical feature, as London, Frankfurter, Kent, Oakes, Atwater. Included in this group are those named from the pictorial signboards found on inns, shops and houses in medieval times, such as Wolf or Bush. When few could read, these visual symbols were necessary.

2. From the man's occupation or official position, as Arrowsmith, Chaucer (maker of chauses or breeches), Sawyer, Sumner (summoner).

3. From the father's name, as Danielson, *Fitz*simmons, *Mc*Donald, Romano*vitch*, Alvarez, *Up*john, Nicolo*pulos*. Among the Irish, O' means "grandson of."

4. From some prominent descriptive feature or nickname, as Moody (which originally meant brave), Stout, Cameron (crooked nose).

Even today, if one did not know a person's name, one would be likely to describe or refer to him in one of these four ways.

Few surnames were consciously adopted by the bearer; usually they were applied by others. For many centuries, surnames could be changed with little or no ceremony. In America, they may still be changed without court permission if no fraudulent intent is involved.

Many surnames have more than one origin, but only the most important are given here. Minor variations in spelling are the result of chance or are due to provincial or dialectal usage. The following list includes about 450 surnames that are most common in the U. S., as indicated by the Social Security rolls. In addition, we have listed about 100 names of famous persons, chiefly Americans.

ABRAMS, ABRAM, ABRAMSON: Descendant of Abram (high father).
ACHESON: Son of Ache (sword).
ACKERMAN: Acre-man or farmer.
ADAMS, ADDAMS: Son of Adam (red earth).
ADLER: Dweller at the sign of the eagle.
AGASSIZ: Magpie, probably from residence at a signboard.
ALEXANDER: Descendant of Alexander (helper of mankind).
ALLEN, ALLAN, ALAN: Descendant of Alan (a very old name, of obscure origin).
ANDERSON, ANDREWS, ANDREWSON: Son of Andrew (man).
ARCARO: One who made bows.
ARCHER: Fighting man armed with bow and arrows.
ARMOUR, ARMOR: One who made defensive armor for the body.
ARMSTRONG: Strong-armed one.
ARNOLD: Descendant of Arnold (eagle rule).
AUDUBON: French for "of the good."
AUSTIN, AUSTEN: Descendant of Augustine (majestic).
AVERY: Descendant of Aelfric (elf ruler).
AYERS, AYER: Descendant of the heir; i.e., the person in whom the fee of the real property of an intestate is vested.

BAER, BARR, BEHR, BEAR, BAHR, BAEHR: Dweller at the sign of the bear.
BAILEY, BAYLEY, BAYLE: Bailie or bailiff, a steward.
BAKER, BAXTER: Breadmaker.
BALDWIN: Descendant of Baldwin (bold friend).
BALL: Descendant of Baldwin (bold friend).
BALLARD: Bald-headed one.
BANKHEAD: Dweller at the end of a bank, a slope or declivity in the land.
BANKS, BANK, BANKER: Dweller near a mound or embankment.
BARBER, BARBOUR: One who dressed hair and practiced surgery.
BARKER: One who prepared leather with bark; a tanner.
BARKLEY: One from Berkley (birch wood); dweller at a birch meadow.
BARNES: Dweller near a barn or grain storage building.
BARON, BARRON: Landowner who held of the king.
BARR: One from Barr (height) in Ayrshire or Renfrewshire.
BARRETT, BARRETTE: Descendant of Barret (bear, rule).
BARRY, BARRIE: One from Barry (height on the isle) in Angus.
BARRYMORE: Dweller at a woodland marsh.
BARTON: One from Barton (grain farm), the name of various places in England.
BARUCH: Descendant of Baruch (blessed).

BASS: Short or fat one.
BATES, BATE, BATTS, BATT, BAT: Son of Bate, a pet form of Bartholomew (son of Talmai, furrow).
BAUER, BAUR: One who tilled the land; a farmer.
BECK: Dweller at or near a brook or stream.
BECKER: Dweller at a brook.
BEEBE, BEEBY: Dweller at a bee farm.
BELL: Dweller at the sign of the bell.
BENDER: One who made casks; a cooper.
BENDIX, BENEDIX: Descendant of Benedict (blessed).
BENNETT: Descendant of Benedict (blessed).
BERRA: Dweller in a hut or hovel.
BERRY: Dweller at or near a hill.
BEST: Dweller at the sign of the beast.
BISHOP: Member of a bishop's entourage.
BLACK, BLAKE: Swarthy-complexioned one.
BOTTOME: Dweller in a valley.
BOWERS, BOWER: One from the manor of Bower (house) in Peebleshire.
BOWMAN: Fighting man who was armed with a bow.
BOYD: Yellow-haired one.
BRADLEY: Dweller near a broad meadow.
BRADFORD: One from Bradford (broad river crossing), the name of various places in England.
BREWER, BREWSTER: One who brewed beer or ale.
BRIGGS, BRIGG: Dweller near a bridge.
BROCKMAN: Dweller at a brook.
BROOKS, BROOKES: Dweller near a spring or brook.
BROWN, BROWNE, Dark-complexioned one.
BRYANT, BRYAN: Descendant of Bryan (hill).
BUCHANAN: One from Both-Chanain (the Cannon's seat) in Sterlingshire.
BUCKLEY: One from Bulkeley (bullock pasture) in Cheshire.
BUNCHE: Descendant of Bunn (good).
BURBANK: Dweller at a castle on a mound or embankment.
BURCH, BURCHER: Dweller at a birch tree or grove.
BURKE: From a burgh or stronghold.
BURNS, BURNES: Dweller near a burn or brook.
BUSH, BUSCH: Dweller at the sign of the bush (usually a wine merchant).
BUTLER: One who made or had charge of bottles.
BYRNE, BYRNES: Grandson of Bran (raven), or of Bjorn (bear).

CAIN, CAINE: Descendant of Cathan (warrior).
CALLAHAN, CALLAGHAN: Grandson of little Ceallach (contention).
CAMERON: Crooked-nosed one.
CAMPANELLA, CAMPANINO: Dweller at the sign of the bell.
CAMPBELL: One with a crooked mouth.
CAPONE: Big-headed one.
CARLSON, KARLSON: Son of Carl (man).
CARPENTER, CARPENTIER: Worker in wood.
CARR, KERR: Dweller at or near a marsh.
CARROLL: Descendant of Carroll (warrior).
CARSON: Dweller in or near a marsh.
CARTER: Cart driver.
CARVER: Wood carver or cutter.
CHANDLER: One who made or sold candles and small wax images for ecclesiastical offerings.
CHAPLIN: Clergyman who had a chapel; a chaplain.
CHAPMAN: Merchant or tradesman; a peddler.
CHURCH: Dweller near a building used for Christian worship.
CHURCHILL: Dweller at or near a church hill.
CLANCY: Son of Flannchadh (ruddy warrior).
CLARK, CLARKE: Clergyman, scholar, scribe or recorder (British pronunciation of clerk).
CLAY: Dweller at a clayey place.
CLEMENS, CLEMENT: Descendant of Clement (gentle).
CLEVELAND: One from Cleveland (hilly district) in Yorkshire.
CLOSE: Dweller at an enclosure or fenced field.
CLOUD: Dweller near a rock or mass of stone.
COHEN, COHN, COHAN, KAHN, KOHN: Priest.
COLE: Descendant of Cole, a pet form of Nicholas (people's victory).
COLEMAN: Servant of Cole. (*See* Cole.)
COLLINS: Son of little Cole. (*See* Cole.)
COMPTON: Dweller at a hollow estate.
CONANT: Descendant of Conan (little hound).
CONNELLY, CONNOLLY: Descendant of Conghalach (valorous).
COOK, COKE, COOKE: One who prepared food.
COOPER, COWPER: Cask maker or seller.
COX, COCKS: Dweller at the sign of the cock.
CRANE, CRAN: Dweller at the sign of the crane.
CRAWFORD: One from Crawford (crow's pass) in Lanarkshire.
CROSBY: One from Crosby (farm by the cross), the name of several villages in England.
CROWDER, CROWTHER: One who played a crowd (a musical instrument); a fiddler.
CRUM, CRUME: Crooked or deformed person.
CUNNINGHAM: One from Cunningham (rabbit farm) in Ayrshire.

DALY, DALEY: One who frequented assemblies.
DANIELS, DANIELSON: Son of Daniel (God has judged).
DAVIDSON, DAVIDS: Son of David (beloved).
DAVIS, DAVIES: Son of Davie or David (beloved).
DAY, DEY: Dairy worker.
DEAN, DEANE: Dweller at a valley or woodland pasture.
DEMPSEY: Descendant of Dymasa (proud).
DEWEY: Descendant of little David (beloved).
DIAMOND: Descendant of Daymond (day protection).
DICKENS, DICKINS: Son of little Dick, a pet form of Richard (rule, hard).
DIMAGGIO: One named after the month of May.

DIXON, DICKSON: Son of Dick, a pet form of Richard (rule, hard).
DOBB, DOBBS: Son of Dobb, a pet form of Robert (bright fame).
DONOHUE, DONOGHUE: Descendant of Donough (brown battler).
DOUGLAS: Dweller at the black water or stream.
DRAKE: Dweller at the sign of the dragon.
DRISCOLL: Descendant of the interpreter.
DULLES: One from the village of Dulas (dark river) or a dweller by the Dulas river in England.
DUNCAN: Brown warrior.
DUNN: Dark-brown-complexioned one.

EDEN: Descendant of little Ede or Ead (prosperity).
EDISON: Son of Edie or Eadie, pet forms of Edmund (rich protector), Edward (rich guardian), Edwin (rich friend), etc.
EDWARDS: Son of Edward (rich guardian).
EGAN, EAGAN: Son of little Aodh (fire).
EINSTEIN: One who lined with stone; a mason.
EISENHOWER: Iron cutter or iron miner; maker of eisenhauers—sabers or swords capable of shearing an iron nail.
ELLIOTT: Descendant of little Elias (Jehovah is my God).
ELLIS: Descendant of Ellis (God is salvation).
ELSDON: One from Elsdon (Ellis' valley) in Northumberland.
EMERSON: Son of Emery (industrious).
ENGEL, ENGLE: One from England.
ERICKSON, ERICSSON: Son of Eric (ever king).
EVANS: Son of Evan (young warrior).

FAIRLESS: Dweller near a bull meadow.
FARRAGUT: Good traveler.
FARRELL, FARRALL: Grandson of Fearghal (super valor).
FAULKNER: Falconer; that is, one who keeps and trains falcons or hawks to hunt game.
FEDER, FEDDER: Dweller at the sign of the feather.
FELDMAN: Worker in a field or open country.
FERGUSON: Son of Fergus (manly strength).
FIELDS, FIELD, FELD: Dweller in an open country or land free of trees.
FINN, FINNE, FYNN: Descendant of Fionn (fair).
FISHER, FISCHER: Fisherman or seller of fish.
FITZGERALD: Son of Gerald (firm spear).
FLEMING: One from Flanders.
FLETCHER: One who made or sold arrows, and sometimes bows.
FLOWERS: One who made arrows.
FORD: Dweller or worker at a shallow stream crossing.
FOSTER: Forest warden or game keeper.
FOX: Dweller at the sign of the fox.
FRANKLIN: Descendant of a free man.
FREEMAN: Free man, one whose status was just above that of a serf.
FRENCH: One from France; a Frenchman.
FRICK: Descendant of a bold man.
FRIEDMAN, FREEDMAN: Man of peace.
FROST: Descendant of Frost (one born at the time of frost).
FULBRIGHT: Descendant of Fulbeorht (very bright).
FULLER: One who cleaned and thickened cloth.
FULTON: One from Fulton (fowl enclosure) in Roxburghshire.

GALLUP, GALUP, GALUT: Flat-bottomed boat used to load and unload ships, the surname being applied to the members of the crew.
GANNETT: One from Gannat, a town in central France.
GARCIA: Descendant of Garcia (firm spear).
GARDNER, GARDINER: One who took care of a garden, cultivating flowers and vegetables.
GARRETT, GARRATT: Descendant of little Gerard (firm spear).
GARROWAY: Spear warrior.
GATES: Dweller in or near a gate, or gap, in a chain of hills.
GERBER: One who prepared leather; a tanner or currier.
GIBSON, GIBBON, GIBBONS: Son of Gib, a pet form of Gilbert (pledge, bright).
GILBERT: Descendant of Gilbert (pledge, bright).
GILLESPIE: Servant of the bishop.
GILMORE, GILMOUR: Son of the servant or devotee of Mary.
GLEASON: Little man of pale or gray complexion.
GOBEL, GOEBEL, GOBLE Descendant of Godbeald (God, brave).
GOLDSMITH: One who made or sold gold articles; a jeweler; later, a banker.
GOLDSTEIN: Gold stone.
GOODWIN: Descendant of Goodwin (God's friend).
GORDON: Dweller at or near a triangular hill pasture.
GOULD, GOLD: Son of Gold or Golda, Old English personal names derived from the metal.
GRAHAM: Dweller at a gray enclosure.
GRANT: Large one.
GRAVES: Descendant of the grave, a minor official appointed by the lord of the manor to supervise his tenants' work.
GRAY, GREY: Gray-haired one.
GREEN, GREENE: Dweller at or near a village green or grassy ground.
GRIFFIN: Dweller at the sign of the griffin, a fabulous monster half lion and half eagle.
GROSS: Large one.

HALE, HALES: Dweller at a corner, nook, small hollow or secret place.
HALL, HULL: Dweller in or near a manor house.
HAMILTON: One from Hambleton (bare or treeless hill), the name of several villages in England.
HAMMARSKJÖLD: Swedish name meaning "hammer shield."
HAMMOND: Descendant of Hamon (home), or of Heahmund (chief protector).
HANLEY, HANDLEY: One from Hanley or Handley (high meadow), the name of several places in England.

HANSEN, HANSON: Son of Hans, a diminutive of the Teutonic Johannes (gracious gift of Jehovah).
HARDWICKE: One from Hardwick (sheep pasture), the name of several villages in England.
HARPER: From the office of harper, the one who played the harp at fair and festival, or for an important lord.
HARRINGTON: One from Harrington (the heath-dwellers' enclosure) in Northamptonshire.
HARRIS, HARRISON: Son of Harry, a pet form of Henry (ruler of the home).
HART: Dweller at the sign of the hart.
HAWKINS, HAWKINGS: Son of Hawkin, little Harry, a pet form of Henry (ruler of the home).
HAWTHORNE: One from Hawthorn (hawthorn tree), a village in Durham.
HAYES, HAYS, HAY: Dweller at a hedge or hedged enclosure.
HEARST: Dweller on or near a copse or wooded eminence.
HECHT: Dweller at the sign of the pike (fish).
HENDERSON, HENRYSON: Son of Henry (ruler of the home).
HENNESSY: Grandson of Aonghus (one-choice).
HENRY: Descendant of Henry (ruler of the home).
HESS: One from Hesse (hooded people) in Germany.
HICKEY, HICKOK: Descendant of little Hick, a pet form of Richard (rule, hard).
HICKS, HICKSON, HIXON: Son of Hick, a variant of Dick, pet forms of Richard (rule, hard).
HILL: Dweller at or near a hill.
HINES, HINDS, HINE: Domestic servant.
HIRSCH, HIRSH: Dweller at the sign of the hart.
HODGES: Descendant of Hodge, a pet form of Roger (fame, spear).
HOFFMAN, HOFMANN: Farm or manor servant.
HOGAN: Descendant of the little youthful one.
HOLLAND, HOLLANDER: One from the Netherlands.
HOLMES, HOLM: Dweller at or near a holly tree.
HOLT: Dweller by a wood or copse.
HOOVER, HUBER: Feudal tenant of a hide of land (30 acres).
HOPE: Dweller on a raised or enclosed land in the midst of a marsh or waste land.
HOPKINS, HOPKINSON: Son of little Hob, a variant of Rob, pet forms of Robert (bright fame).
HOROWITZ: Dweller on or near a mountain.
HORTON: One from Horton (village on muddy land), the name of various places in England.
HOWARD: Descendant of a hayward, the manoral official in charge of the hedges and guardian of the cultivated land.
HOWE: Dweller on or near a projecting ridge of land or promontory.
HOWELL: Descendant of Howell (eminent).
HUBBARD: Descendant of Hubert (spirit bright).
HUDSON, HUTSON: Son of Hudde, a pet form of Richard (rule, hard).
HUGHES: Son of Hugh (spirit).
HUNT, HUNTE, HUNTER: Huntsman.
HUTCHINSON, HUTCHINS: Son of little Hutch, a pet form of Hugh (spirit).

INGRAM, INGRAHAM: One of Ingram (grassland enclosure) in Northumberland.
IRWIN: Descendant of Erewine (sea friend).

JACKSON: Son of Jack, a pet form of John (gracious gift of Jehovah).
JACOBS, JACOBSON: Son of Jacob (the supplanter).
JAMES: Descendant of James, Old French form of Jacob (the supplanter).
JEFFERSON: Son of Jeffrey (God's peace).
JENKINS: Son of little Jen, a pet form of John (gracious gift of Jehovah).
JENNINGS: Descendant of Jen, a pet variant of John (gracious gift of Jehovah).
JENSEN: Son of Jen. (*See* Jenkins.)
JOHNSON, JOHNS: Son of John (gracious gift of Jehovah).
JOHNSTON: One from Johnston (John's manor) in Dumfriesshire; also confused with Johnson.
JONES: Son of Jone, the Welsh pronunciation of John.
JORDAN: Descendant of Jordan (flowing down), one named after the river Jordan.
JOSEPH: Descendant of Joseph (he shall add).
JOYCE: Descendant of Joyce (joyful), a masculine name in medieval times.

KAISER: Descendant of Caesar; i.e., emperor.
KAYE, KEY, KEYS: Dweller near a wharf or boat-landing place.
KEFAUVER: Maker of vats.
KELLY, KELLEY: Descendant of Kelly (contention).
KENNEDY: Descendant of Kennedy (head armor).
KENT: One from the county of Kent (open country) in the southeast corner of England.
KERR: Dweller at or near a marsh, especially one grown up with low bushes.
KETTERING: From Kettering (estate of Cyttringas) in Northamptonshire.
KERNAN, KIERNAN: Son of the lord or owner of the village.
KESSLER: One who made kettles.
KIERAN: Grandson of Kieran (little black one), the name of 15 Irish saints.
KILGALLEN: Descendant of the servant of St. Caillin.
KING: One who played that part in a pageant; one connected in some way with the king's household.
KIRBY, KIRKBY: One from Kirby or Kirkby (village with a church), the name of various places in England.
KIRK, KIRKE: Dweller near a church.
KLEIN, KLINE: Small one.
KNAPP: Dweller at the top of a hill.
KNIGHT: Military servant of the king.
KNOWLAND: Dweller at a knoll or hill-top.
KNOX, KNOWS: Dweller on the lands of Knock (hill) in Scotland.

KREISLER: One who operated a lathe; a turner.
KRUEGER, KRUGER: Publican or keeper of an inn.

LAMB: Dweller at the sign of the lamb.
LANE, LAYNE: Dweller at a narrow rural road.
LANG, LANGE: Tall one.
LANIER: One who dressed, wove or sold wool.
LARDNER, LARDER: Keeper of a larder, the place where provisions were stored.
LARSON, LAWSON: Son of Lars or Lawrence (laurel, symbol of victory).
LEE, LEA, LEGG, LEIGH, LEY: Dweller at a meadow or open place in a wood.
LEHMAN: Vassal or feudal tenant.
LESTER: One from Leicester (dwellers on Legra river), a town and county in England.
LEVIN, LEVINE: Descendant of Leofwin (dear friend).
LEVY: Descendant of Levi (my joining).
LEWIS: Descendant of Lewis (hear, fight).
LINCOLN: One from Lincoln (lake colony) in Lincolnshire.
LIND, LINDE: Dweller by a lime tree.
LINDBERGH: Linden tree on a hill or mountain.
LINDQUIST, LINQUIST: Linden-tree twig.
LIPPMANN, LIPMAN: Servant of Lipp, a pet name of Phillip (lover of horses).
LIVINGSTON: One from the lands, now parish, of Livingston (abode of Leofwin, dear friend) in west Lothian.
LODGE: Dweller in a cottage or hut.
LOGAN: One from Logan (little hollow) in Ayrshire.
LONG, LANG, LANGE: Tall one.
LONGFELLOW: Tall partner or companion.
LOVE: Descendant of Love, an early English name.
LOWE: Dweller at the sign of the lion.
LOWELL: Dweller at the sign of the little wolf.
LUCE: Descendant of Luke (light).
LUNT: One from Lunt (grove) in Lancashire.
LYNCH: Dweller at a ridge or bank which separated strips of arable land.

MacARTHUR: Son of Arthur (valorous).
MacGOWAN, MAGOWAN: Son of a smith, or worker in metals.
MacINTYRE, MacINTIRE: Son of a carpenter, or worker in wood.
MACK: Descendant of Mack (son), an abbreviation of one or another of the numerous Gaelic Mac- names.
MADDEN: Descendant of little Matthew (gift of Jehovah).
MADISON: Son of Matthew (gift of Jehovah).
MANN: Vassal or servant.
MANNING: Son of the servant.
MARSHALL: One who tended horses, especially one who treated their diseases.
MARTIN, MARTEN, MARTINS: Descendant of Martinus (from Mars, the god of war).
MARX, MARKS: Son of Mark or Marcus (hammer).
MASON: Builder with stone.
MATTHEWS, MATTHIAS: Son of Matthew (gift of Jehovah).
MAXWELL: Dweller by a big spring.
MAY, MAYES, MAYS: Descendant of May, a pet form of Matthew (gift of Jehovah).
McCARTHY: Descendant of Carthach (a friend).
McDONALD: Son of Donald (dark or brown-haired stranger).
McDOWELL: Son of a dark foreigner.
MENCKEN: Inhabitant of a monastery.
MILLER, MILLAR, MOLLER, MUELLER, MILNER: One who grinds grain.
MILLS, MILL: Dweller at or near a mill.
MILTON: One from Milton (mill enclosure), the name of various villages in England.
MITCHELL: Descendant of Michael (who is like to God).
MONROE, MUNRO: Dweller near the Roe river in Derry, Ireland.
MOODY, MOODIE: Bold, impetuous, brave one.
MOORE, MOOR, MORE: Dweller near a moor, marsh or waste land.
MORGAN: Descendant of Morgan (great, bright).
MORLEY: Dweller near a waste-land meadow.
MORRIS, MORICE: Descendant of Maurice (Moorish, or dark-skinned).
MORRISON: Son of Morris (Moorish, or dark-skinned).
MORROW: Dweller in a row of houses by a moor; i.e., marsh or waste land.
MORSE, MOORS: Son of Moor (dark-complexioned one).
MOSS: Descendant of Moss, a pet form of Moses (saved from the water).
MUELLER: (*see* Miller).
MURPHY: Descendant of Murphy (sea warrior).
MURRAY, MURRY, MURRIE: One from Moray (beside the sea) in Scotland.
MYERS, MEYER, MEIER: Overseer or head servant; later, a farmer.

NASH: One who lived "atten ashe," which by wrong division became "atte Nashe"; i.e., at an ash tree.
NATHAN, NATHANSON: Descendant of Nathan (gift of God).
NEAL, NEALE: Descendant of Nigel or Neil (champion).
NELSON, NEILSON: Son of Nel or Neil (champion).
NEWMAN, NEUMANN: Recent arrival or newcomer.
NEWTON: One from Newton (new village or recent settlement).
NICHOLS, NICHOLSON, NICHOLLS: Son of Nichol (people's victory).
NIXON: Son of Nick, a pet form of Nicholas (people's victory).
NORMAN, NORMAND: Descendant of Norman (a northman).
NORRIS: One from the north country; a northman.

O'BRIEN: Grandson of Bryan or Brian (hill).
O'CONNELL: Grandson of a discreet one.
O'CONNOR: Grandson of Conchor (high-will or desire).

O'DONNELL, O'DONILL: Grandson of Domnall (world mighty).
OLIVER: Descendant of Oliver (elf host).
OLSON, OLSEN: Son of Ole or Olaf (ancestor's relic).
O'NEILL, O'NEAL: Grandson of Niall (champion or military hero).
OPPENHEIMER, OPPENHEIM: One from Oppenheim (Oppo's place) a German town.
O'ROURKE: Grandson of a restive or rushing person.
OVERSTREET: Dweller at a Roman road by a river bank.
OWENS: Son of Owen (well-born).

PAGE, PAIGE: Male servant of the lowest grade; an attendant.
PAINE, PAYNE: Rustic or countryman; a pagan.
PALMER: Palm-bearing pilgrim returned from the Holy Land.
PARKER: Park-keeper or gamekeeper.
PATTERSON: Son of Patrick (noble or patrician).
PATTON, PATTEN, PATON: Descendant of little Pat, a pet form of Patrick (noble or patrician).
PAUL, PAULL, PAWL: Descendant of Paul (small).
PEABODY: Dweller at the sign of the peacock.
PEALE, PEEL: Dweller at a fortified residence.
PECK, PEC: Dweller at or on a pointed hill.
PENN: Dweller near a pen or sheep fold.
PERKINS: Son of little Pier, a pet form of Peter (rock).
PERRY: Descendant of little Pier, a pet form of Peter (rock).
PETERSON, PEDERSON, PETERS: Son of Peter (rock).
PFEIFFER, PFEIFER: One who played a fife or a pipe; a piper.
PHILLIPS, PHIPPS: Son of Phillip (lover of horses).
PIERCE, PIERS: Descendant of Pierce or Piers, early English forms of Peter (rock).
PLATT: One who lived on or worked a small piece of ground or patch.
POE: Dweller at the sign of the peacock.
POPE: One who played the part of the Pope in pageants and plays.
PORTER: Carrier; also a gatekeeper.
POTTER: One who made pots of earthenware or metal.
POWELL: Son of Howel (eminent).
POWERS, POWER: Poor one; a pauper.
PRATT: Dweller on or near a meadow.
PRICE: Son of Rhys (ardor, a rush).

RANDALL, RANDLE, RANDOLPH: Descendant of Randal or Randwulf (shield, wolf).
RAYMOND, REYMOND: Descendant of Raymond (wise protector).
REED, REID, READ: Red-haired or ruddy one.
REEVES, REEVE: Minor official appointed by the lord of a manor to supervise his tenants' work.
REGAN: Descendant of an impulsive man.
REYNOLDS: Son of Regenweald or Reginald (powerful, force).
RHODES, RHOADES: Dweller at a clearing.
RICE: Descendant of Rhys (ardor, a rush).
RICHARDSON, RICHARDS: Son of Richard (rule, hard).
RICHMOND: One from Richemont (lofty mountain) in Normandy.
RICHTER: One who held the office of judge.
RILEY, REILLY: Descendant of Reyly (valiant).
ROBERTS, ROBERTSON: Son of Robert (fame, bright).
ROBBINS, ROBINS: Son of little Rob, a pet form of Robert (fame, bright).
ROBINSON: Son of little Rob, a pet form of Robert (fame, bright).
ROCKEFELLER: Dweller near a rye field.
ROGERS: Son of Roger (fame, spear).
ROOSEVELT: Dweller near a rose farm or field.
ROSE: Dweller at the sign of the rose.
ROSS: Dweller at a promontory or peninsula.
ROWE, ROW: Dweller at a rough or uncultivated land.
RUSSELL: Red-haired one.
RYAN: Grandson of the little king; corruption of O'Ryan.

SAINT-GAUDENS: Descendant of Gaudentius (rejoicing), the name of five different saints revered by the Catholic Church.
SALK: Dweller near a willow tree.
SALTONSTALL: One from Salternstall in Kent.
SAMPSON, SAMSON: Son of Sam, a pet form of Samuel (God hath heard).
SANDBURG: Dweller near a sandy fortified place.
SANDERS: Abbreviation of Alexander (helper of mankind).
SAROYAN: Corruption of the Armenian *Saro Khan* (mountain prince).
SAWYER, SAWIER: One who cut timber into boards.
SCHAEFER, SCHAFER: One who took care of sheep; a shepherd.
SCHMIDT, SMIDT: German forms of Smith, a worker in metals.
SCHNEIDER: One who made outer garments; a tailor.
SCHROEDER: Cutter; tailor.
SCHULTZ, SCHULZ, SCHULZE: Magistrate or sheriff.
SCHWARTZ, SCHWARZ, SWARTZ: Of a dark or swarthy complexion; black.
SCHWEITZER: One from Switzerland; a Swiss.
SCOTT: One from Scotland.
SHAKESPEARE, SHAKSPERE: Dweller on a peasant's farm; also nickname for a soldier; one who wielded a spear.
SHAW: Dweller at a wood or grove.
SHEPARD, SHEPHERD: One who tended sheep.
SHERIDAN: Descendant of Shiridane (peaceful).
SHERMAN: Shearman or cutter of wool or cloth.
SHERWOOD: One from Sherwood in Nottinghamshire (the wood belonging to the shire or county).
SIMMONS: Son of Simon or Simeon (gracious hearing).
SIMPSON: Son of Sim, pet form of Simon or Simeon (gracious hearing).

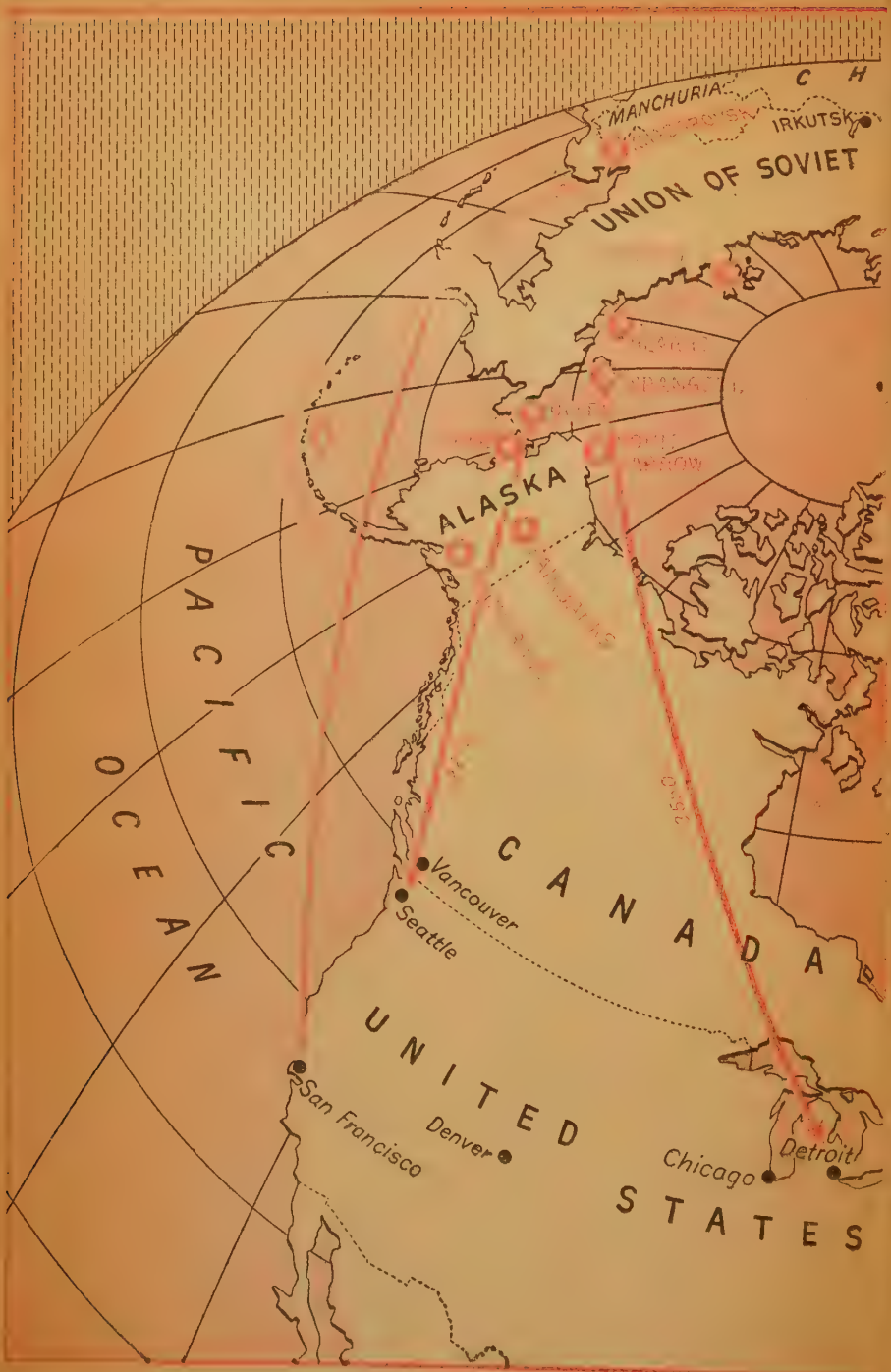
SIMS, SIMMS: Descendant of Sim, a pet form of Simon or Simeon (gracious hearing).
SINCLAIR: One from St. Clair (bright), the name of several places in Normandy.
SKELTON: One from Skelton (the hill or bank manor), the name of parishes in Yorkshire and Cumberland.
SKINNER, SKYNNER: One who prepared skins.
SLOAN: Grandson of Sluaghan (soldier or warrior).
SMITH, SMYTH, SMYTHE: Worker in metals.
SNODGRASS: Dweller at a smooth, trim, grassy place.
SNYDER, SCHNEIDER: One who made outer garments; a tailor.
SPELLMAN: Preacher or orator.
SPENCER, SPENSER: One who dispensed or had charge of the provisions in a household.
SPRINGER, SPRINGS: Dweller at a spring or stream.
STANLEY, STANDLEY: One from Stanley (stony meadow), the name of several places in England.
STANTON: One from Stanton (homestead on stony ground), the name of many places in England.
STARK, STARKS, STARKE: Strong, severe one.
STASSEN: Son of Stass, a pet form of Anastasius (resurrection).
STEELE, STEEL: One from Steel (stile, or place where one has to climb), the name of places in Northumberland and Shropshire.
STEFANSSON: Son of Stefan (crown or garland).
STEINBECK: Dweller near a stony stream.
STENGEL: Dweller near a small pole or stake.
STEPHENS, STEVENS, STEVENSON: Son of Stephen (crown or garland).
STEWART, STUART, STEWARD: Keeper of a sty, pen or hall; later, manager of a household.
STOKES: One from Stoke or Stokes (monastery, cell, place, or outlying farm), a very common place name in England.
STONE, STINE, STEIN: Dweller near a stone or rock, a boundary mark.
STOWE: Dweller near a holy place, probably a monastery or church.
STRITCH: Dweller at a street or paved road.
SULLIVAN: Grandson of Sullivan (black-eyed); corruption of O'Sullivan.

TAFT: Dweller at a toft, a yard enclosing a residence.
TATE: One with a large or peculiar head.
TAYLOR: One who made outer garments; a tailor.
THOMAS: Descendant of Thomas (a twin).
THOMPSON: Son of Tom, pet form of Thomas (a twin).
THORNTON: One from Thornton (place where thorn bushes grew), the name of many places in England.
TILLMAN: One employed in tilling the soil.
TOBIN: Descendant of little Tob, a pet form of Tobias (Jehovah is good).
TODD: Dweller at the sign of the fox.
TOWNSEND: Dweller at the outskirts of a village.
TOYNBEE: Dweller at Teoda's place.
TRACY: One from Tracy in Normandy.
TRUMAN: Faithful or loyal servant.
TUCKER: One who cleaned and thickened cloth.
TURNER: One who fashioned objects on a lathe.
TYLER: One who made or sold tiles, or who covered buildings with tiles.

VALENTINE: Descendant of Valentine (vigorous or healthy).
VANDERBILT: Dweller near a heap or mound.
VAUGHN, VAUGHAN: Descendant of Vaughan (little).
VOSS: One with foxlike characteristics.

WADE: Dweller at a shallow river crossing.
WAGNER, WAGONER: Driver of a wagon.
WAINWRIGHT: One who made wagons and carts.
WALKER: One who cleaned and thickened cloth; a fuller.
WALLACE, WALLIS, WALSH, WELCH: Man from Wales; a foreigner or stranger.
WARD, WARDEN, WARDER: Guard or watchman.
WARE: One from Ware (dam or fish trap) in Hertfordshire.
WARNER: Descendant of Warner (protecting warrior).
WARREN: Dweller at or keeper of a game preserve.
WASHINGTON: One from Washington in Durham, the manor of the Wessyngs; i.e., the family of Wes.
WATERS, WATTERS: Descendant of Walter (rule folk), the early pronunciation of the name.
WATKINS: Son of little Wat, a pet form of Walter (powerful warrior).
WATSON: Son of Wat. (*See* Watkins.)
WATTS, WATT: Descendant of Wat, a pet form of Walter (rule folk).
WAUGH: Dweller at a wall.
WEAVER, WEBB, WEBER, WEBSTER: Weaver of cloth.
WELLS: Dweller near a spring or stream.
WEST: One from the west; a west countryman.
WHEELER: Maker of wheels and wheeled vehicles.
WHISTLER: Whistler or piper.
WHITE: Light- or fair-complexioned one.
WHITTIER: White tawer or dresser of white leather.
WILEY, WYLIE: Dweller near a trap or mill.
WILLARD: Descendant of Wilheard (resolute, brave).
WILLIAMS, WILLIAMSON: Son of William (helmet, resolution).
WILLIS, WILSON: Son of Will, a pet form of William. (*See* Williams.)
WOOD, WOODS: Dweller at a wood.
WRIGHT: Worker in wood or other hard material.

YOUNG: One younger than another with whom he was associated.


MANCHURIA
IRKUTSK
UNION OF SOVIET
ALASKA
PACIFIC OCEAN
Vancouver
Seattle
CANADA
UNITED STATES
San Francisco
Denver
Chicago
Detroit


Approximate Mileage Indicated
I N A
STALINSK
MAGNITOGORSK
SOCIALIST REPUBLICS
DICKSON
Archangel
Murmansk
MOSCOW
RUDOLPH I
MAGDAGRIN SHAR
3180
3660
ICELAND
Berlin
London
Paris
EUROPE
SEA
THULE
GREENLAND
BRITISH ISLES
MEDITERRANEAN
FROBISHER BAY
NAPARTOK
Gibraltar
MOROCCO
3725
GOOSE BAY
ATLANTIC
OCEAN
AZORES
OTTAWA
New York
Pittsburgh
WASHINGTON


Davis Strait
Sondre Stromfjord
Godthaab
Narsarssuak
Frobisher Bay
Hudson Str.
Hudson Bay
Goose Bay
Atlantic
St. John's
Quebec
Montreal
Halifax
Washington
New York
Ocean
NATO countries
Iron Curtain areas
Neutral areas
U.S. airbases abroad


Norwegian Sea
Reykjavik
Oslo
Stockholm
Gulf of Bothnia
Helsinki
Porkkala
ESTONIA
LATVIA
LITHUANIA
UNION OF SOVIET SOCIALIST REPUBLICS
North Sea
Baltic Sea
POLAND
Berlin
MANY
London
CZECHO-SLOVAKIA
Vienna
Paris
HUNGARY
RUMANIA
Trieste
BULGARIA
ALBANIA
Rome
Madrid
Lisbon
Mediterranean Sea
Str. of Gibraltar
Algiers
Athens
Tripoli


EUROPE AND THE NEAR EAST
Communist bloc
Capital cities
Atlantic Ocean
Norwegian Sea
North Sea
Baltic Sea
Mediterranean Sea
Adriatic Sea
Reykjavik
Keflavik
FAEROE IS. (Den.)
SHETLAND IS.
Trondheim
Bergen
Oslo
Stockholm
Narvik
Skagerrak
Göteborg
Copenhagen
Edinburgh
Belfast
Dublin
Limerick
Liverpool
ENGLAND
London
Southampton
Cherbourg
CHANNEL IS. (Br.)
Brest
Paris
Nantes
Loire R.
FRANCE
Bay of Biscay
Bordeaux
Hamburg
Bremen
Amsterdam
The Hague
Brussels
Bonn
Frankfurt
Berlin (JOINT OCC.)
Stettin
Gdansk (Danzig)
Prague
CZECHOSLOVAKIA
Munich
Vienna
Bern
Geneva
Lyon
Turin
Venice
Trieste
Zagreb
HUNGARY
Genoa
Nice
Marseille
RIVIERA
Florence
Rome
Naples
Bari
Oporto
Lisbon
Tagus R.
Madrid
Valencia
Barcelona
CORSICA (Fr.)
SARDINIA
BALEARIC IS.
Guadalquivir R.
Cadiz
Granada
Gibraltar (Br.)
TANGIER
SP. MOROCCO
Casablanca
Rabat
Oran
Algiers
Tunis
Palermo
SICILY
MT. ETNA
MALTA (Br.)
MOROCCO
ALGERIA
TUNISIA
Tripoli
LIBYA
70
80
90
10
20
30
40
50
60
70


0
North Cape
40
50
60
70
Kirkenes
0 Miles 500
Kiruna
Sea
White
Archangel
N. Dvina R.
URAL MTS.
Sverdlovsk
Lulea
Gulf of Bothnia
Vaasa
L. Onega
L. Ladoga
Helsinki
Leningrad
Kama R.
Porkkala
Tallinn
ESTONIA
Volga R.
Moscow
SOCIALIST REPUBLICS
Magnitogorsk
Riga
LATVIA
Oka R.
Kuibyshev
Memel
LITHUANIA
Dvina R.
Smolensk
Ural R.
Kaliningrad
EAST RUSSIA
UNION OF SOVIET
Saratov
Warsaw
Don R.
Stalingrad
Bug R.
Kiev
Dnieper R.
Kharkov
Volga R.
Kraców
UKRAINE
Dniester R.
Dnepropetrovsk
Rostov
Budapest
Pruth R.
Odessa
Sea of Azov
Caspian Sea
RUMANIA
CRIMEA
Sevastopol
Yalta
CAUCASUS
Belgrade
Bucharest
Tiflis
Danube R.
Black Sea
Baku
BULGARIA
Sofia
Istanbul
Bosporus
AZERBAIJAN
Tabriz
THRACE
Ankara
L. Van
Teheran
Dardanelles
Salonika
Aegean Sea
Izmir
L. Urmia
Mosul
Adana
Aleppo
Tigris R.
Athens
Baghdad
RHODES
CYPRUS (Br.)
Beirut
Damascus
CRETE
Euphrates R.
Basra
KUWAIT
Tel Aviv
Jerusalem
Amman
Dead Sea
Benghazi
Alexandria
SUEZ CANAL
Persian Gulf
SAUDI ARABIA
Cairo

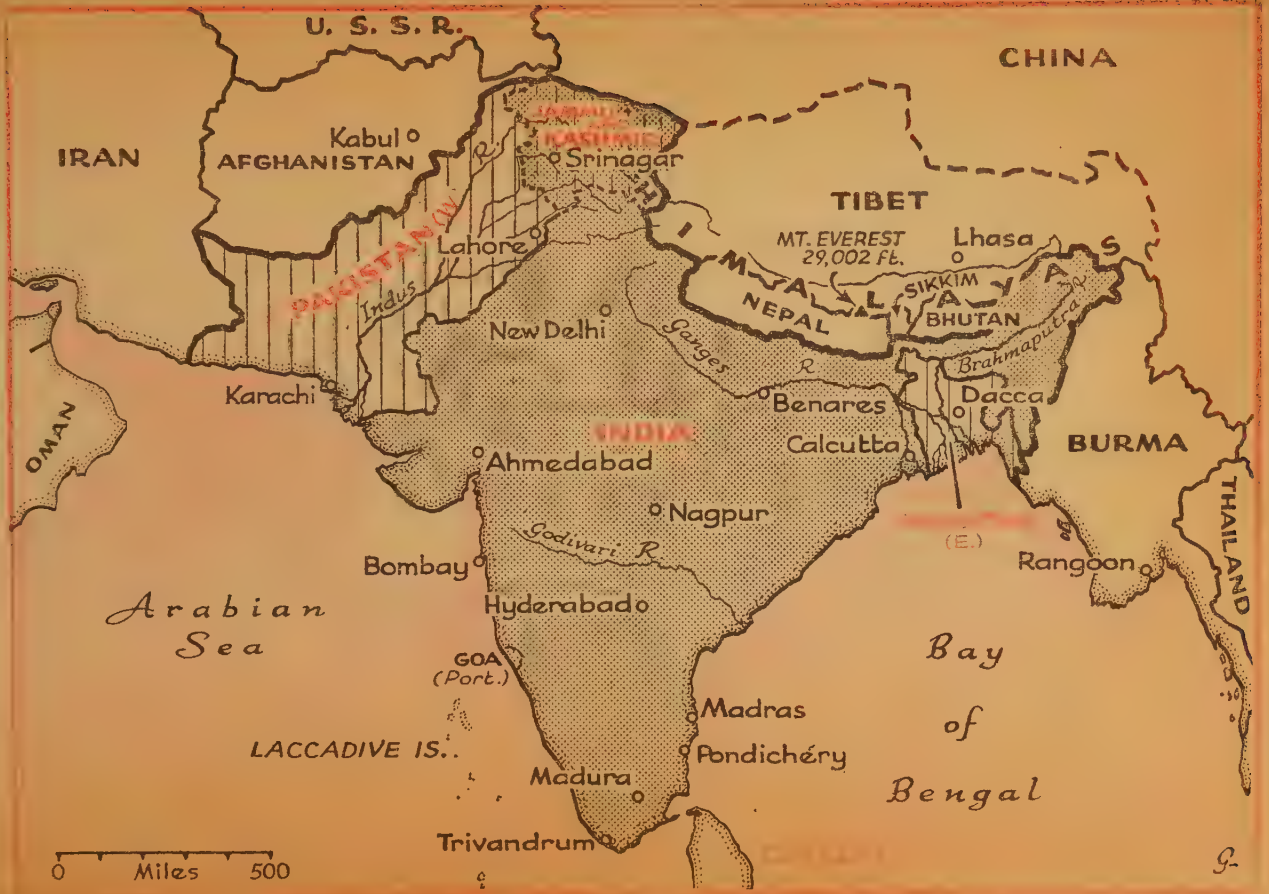

Atlantic Ocean
Arctic
Arctic Ocean
Barents Sea
SPITSBERGEN
PORTUGAL
SPAIN
FRANCE
Mediterranean
ITALY
YUGOSLAVIA
HUNGARY
RUMANIA
BULGARIA
Baltic Sea
POLAND
CZECHOSLOVAKIA
Leningrad
Archangel
Moscow
Dniepr R.
Kiev
UNION OF SOVIET
MOUNTAINS
Sverdlovsk
TRANS-URALIAN
Volga R.
EUROPE
ASIA
Stalingrad
Ural R.
Magnitogorsk
Omsk
Novosibirsk
Barnaul
Black Sea
Ankara
TURKEY
CAUCASUS
Caspian Sea
Astrakhan
Karaganda
Aral Sea
Balkhash
Baku
Iranian Plateau
Alma Ata
Tashkent
Stalinabad
LEBANON
ISRAEL
SYRIA
SUEZ CANAL
JORDAN
IRAQ
Baghdad
Teheran
IRAN
SAUDI ARABIA
Medina
Mecca
Riyadh
Abadan
Persian Gulf
Red Sea
AFGHANISTAN
Kabul
Kandahar
Lahore
SINKIANG
TIBET
HIMALAYAS
MT. EVEREST
PAKISTAN
Karachi
Indus R.
New Delhi
YEMEN
ADEN
OMAN
Ahmedabad
Ganges R.
Calcutta
INDIA
Bombay
Arabian Sea
Hyderabad
GOA (Port.)
Bay of Bengal
Madras
LACCADIVE IS. (Br.)
Colombo
MALDIVE IS. (Br.)
AFRICA
EURASIA, 1956
Communist bloc
Capital cities
0
Miles
1000
Indian


NORTH POLE
Arctic Ocean
Bering Str.
Bering Sea
ALEUTIAN IS. (U.S.)
KAMCHATKA
RUSSIA
SOCIALIST REPUBLICS
Tiksi
Lena R.
Dudinka
Yakutsk
Nunguska R.
Yenisei R.
Aldan R.
Sea of Okhotsk
SAKHALIN
KURILE IS. (U.S.S.R.)
RAILWAY UNDER CONSTRUCTION
Nikolaevsk
Krasnoyarsk
Lake Baikal
Amur R.
Stalinsk
Irkutsk
MANCHURIA
Harbin
Sea of Japan
Vladivostok
Tokyo
JAPAN
Pacific Ocean
Ulan Bator
MONGOLIA
Mukden
Yalu R.
38°
Osaka
Urumchi
DESERT
GOBI
Peiping
Seoul
Nagasaki
Yellow R.
Lanchow
CHINA
Shanghai
Nanking
MARIANAS IS.
OKINAWA
(U.S. Admin.)
Salween
Lhasa
Chungking
Yangtze R.
Changsha
(U.S.) GUAM
Kunming
Canton
Hong Kong (Br.)
Irrawaddy R.
Mandalay
Hanoi
CAROLINE IS.
(U.S. Trust Territory)
Rangoon
INDOCHINA
Sea
Manila
Tacloban
Mekong
Bengal
Bangkok
China
Davao
ANDAMAN IS. (India)
Phnom Penh
Saigon
Zamboanga
South
Jesselton
NICOBAR IS. (India)
MALAYA
Kuching
AREA IN DISPUTE BETWEEN NETHERLANDS AND INDONESIA
AMBOINA
Medan
Kuala Lumpur
Singapore
Balikpapan
SUMATRA
Makassar
Palembang
Djakarta
REPUBLIC OF INDONESIA
TIMOR (Port.)
Darwin
Indian Ocean
Surabaja
BALI
AUSTRALIA


FAR EAST AND PACIFIC
U. S. S. R.
OUTER MONGOLIA
MANCHURIA
Vladivostok
Mukden
Peiping
CHINA
Yellow R.
Dairen
Seoul
Pusan
N. KOREA
S. KOREA
Tokyo
Yangtze R.
Hankow
Nanking
Tsingtao
Chungking
Nagasaki
Shanghai
Osaka
JAPAN
PAKISTAN
NEPAL
TIBET
BHUTAN
Calcutta
INDIA
Rangoon
BURMA
Hanoi
Canton
Foochow
Bangkok
THAILAND
LAOS
HAINAN
Hong Kong (Br.)
Macao (Port.)
N. VIETNAM
S. China Sea
RYUKYU
OKINAWA
BONIN IS.
FORMOSA
IWO JIMA (UNITED STATES)
CAMBODIA
Saigon
S. VIETNAM
LUZON
Manila
Philippine Sea
PHILIPPINES
1595 MILES
MARIANAS IS.
GUAM (U.S.)
Indian Ocean
Singapore
MALAYA
SUMATRA
Palembang
BRUNEI
SARAWAK
Zamboanga
LEYTE
BR. N. BORNEO
MINDANAO
Tarakan
Davao
BORNEO
Jakarta
YAP IS.
CAROLINE
PALAU IS.
(U.S. TRUST)
CELEBES
HALMAHERA
JAVA
REPUBLIC OF INDONESIA
BALI
CERAM
Amboina
Hollandia
NEW GUINEA
BISMARCK ARCH.
TIMOR (Port.)
Lae
PAPUA
Darwin
Perth
AUSTRALIA
GREAT BARRIER REEF
Brisbane
Sydney
Melbourne
74
TACHEN IS.
Wenchow
PENSHAN
E. China Sea
TAISHAN
Foo-chow
MATSU
Keelung
HAITAN
Taipei
NANJIH
Formosa Str.
FORMOSA
13,113
Quemoy
Amoy
PESCADORES IS.
Tainan
0
100 Miles
Associated with Western Powers


ALASKA
UNITED STATES
San Francisco
Bering Sea
ATTU
ALEUTIAN IS (U.S.)
KAMCHATKA
SAKHALIN
KURILE IS. (U.S.S.R.)
HOKKAIDO
INTERNATIONAL DATE LINE
Pacific
HAWAIIAN IS.
MIDWAY IS.
Sunday
Monday
Honolulu
MARCUS
ADMINISTRATION)
WAKE I. (U.S.)
JOHNSTON I. (U.S.)
1500 MILES
Ocean
BIKINI
ENIWETOK
KWAJALEIN
MARSHALL IS.
ISLANDS
TRUK IS.
TERRITORY)
HOWLAND (U.S.)
BAKER
MAKIN
TARAWA
(U.S. & U.K.)
PHOENIX IS.
To Tahiti and TUAMOTU ARCH. (Fr.)
EQUATOR
GILBERT IS.
Rabaul, New Britain
SOLOMON IS. (Br.)
ELLICE IS.
SAMOA IS. (U.S. & N.Z.)
SANTA CRUZ IS.
GUADALCANAL
Coral Sea
FIJI IS. (Br.)
NEW HEBRIDES
NEW CALEDONIA (Fr.)
NEW ZEALAND
KAUAI
OAHU
Waikiki Beach & Diamond Head
MOLOKAI
Wailuku
MAUI
Pearl Harbor
Honolulu
LANAI
KAHOOLAWE
Alenuihaha Chan.
MAUNA KEA 13,784
Hilo
HAWAII
MAUNA LOA 13,680
KILAUEA CRATER
0
100 Miles


BULGARIA
Black Sea
Batumi
Tiflis
SOVIET UNION
Baku
Istanbul
Bosporus
Uskudar
Samsun
Trabzon
Kars
Yerevan
Caspian Sea
Dardanelles
Bursa
Ankara
Aegean Sea
Balikesir
Eskisehir
TURKEY
Kayseri
AZERBAIJAN
Tabriz
Bandar Shah
Lake Van
L. Tuz
Diyarbakir
Resht
Izmir
L. Urmia
Konya
Teheran
Antalya
Adana
Mosul
Aleppo
Tigris
Iraq
IRAN
Antakya
Euphrates
RHODES
SYRIA
Kermanshah
CYPRUS
Homs
Haditha
Isfahan
CRETE
Tripoli
Yezd
LEBANON
Baghdad
Mediterranean Sea
Beirut
Sidon
IRAQ
Damascus
Karbala
Haifa
SYRIAN
Ahwaz
ISRAEL
Tel Aviv
DESERT
Port Said
Jerusalem
Amman
Basra
Shiraz
Alexandria
Gaza
Dead Sea
Abadan
JORDAN
KUWAIT
SUEZ CANAL
Al Kuwait
Cairo
Persian
QATTARA DEPRESSION
PYRAMIDS OF GIZA
Nile
BAHREIN I.
Gulf
EGYPT
MT. SINAI
SAUDI ARABIA
Dhahran
Airbases (Br.-U.S.-Turk.)
Oil Fields
Oil Pipelines
Red Sea
To Medina and Mecca
0 Miles 300
Hofuf
QATAR
Riyadh


U. S. S. R.
CHINA
IRAN
Kabul
AFGHANISTAN
Srinagar
TIBET
MT. EVEREST
29,002 Ft.
Lhasa
Lahore
PAKISTAN (W.)
Indus R.
HIMALAYAS
SIKKIM
NEPAL
BHUTAN
New Delhi
Ganges R.
Brahmaputra R.
Karachi
Benares
Dacca
OMAN
INDIA
Calcutta
BURMA
Ahmedabad
Nagpur
Godivari R.
(E.)
Bombay
Rangoon
THAILAND
Arabian Sea
Hyderabad
GOA
(Port.)
Bay of Bengal
Madras
LACCADIVE IS.
Pondichéry
Madura
Trivandrum
0 Miles 500


Caribbean Sea
Maracaibo
CURAÇAO
TRINIDAD
PANAMA CANAL
Caracas
BRITISH GUIANA
Orinoco R.
VENEZUELA
Georgetown
Paramaribo
PANAMA
Bogatá
COLOMBIA
DUTCH GUIANA
Cayenne
FRENCH GUIANA
Quito
Negro R.
Branco R.
ECUADOR
Barcellos
Manaus
Guayaquil
Iquitos
Amazon R.
Belém
Fortaleza
Madeira R.
Tapajós R.
Tocantins R.
PERU
BRAZIL
São Francisco R.
Recife
Callao
Lima
MATO GROSSO
Araguaia R.
Salvador
Arequipa
BOLIVIA
Mato Grosso
La Paz
Belo Horizonte
Goiás
Sucre
Paraná R.
PARAGUAY
Campinas
São Paulo
Rio de Janeiro
Antofagasta
Asunción
Salado R.
Paraná R.
Uruguay R.
CHILE
Córdoba
Pôrto Alegre
ARGENTINA
Valparaiso
Santiago
Rio Grande
URUGUAY
Buenos Aires
Montevideo
La Plata R.
Bahia Blanca
Colorado R.
Negro R.
PATAGONIA
FALKLAND ISLANDS
St. of Magellan
Tierra del Fuego
Cape Horn
Pacific Ocean
Atlantic Ocean
SOUTH AMERICA


Atlantic Ocean
EUROPE
ASIA
Mediterranean Sea
Tangier
Casablanca
Algiers
Tunis
Bengasi
Tripoli
Alexandria
Cairo
Suez Canal
Red Sea
CANARY ISLANDS
ALGERIA
LIBYA
Nile R.
FRENCH WEST AFRICA
Dakar
ETHIOPIA
Mogadiscio
Congo R.
Zenzibar
Loanda
Mossâmedes
Pretoria
Johannesburg
Lourenço Marques
Durban
Capetown
Atlantic Ocean
Indian Ocean
AFRICA
LEGEND
(A) INDEPENDENT
(B) FRENCH SPHERE
SPANISH
(D) BRITISH SPHERE
(E) PORTUGAL
(F) BELGIUM
ERITREA FEDERATED WITH ETHIOPIA
ITALIAN SOMALILAND U.N. TRUST TERRITORY


Arctic Ocean
U.S.S.R.
U.S.
ST. LAWRENCE I.
Bering Sea
Pt. Barrow
SVERDRUP IS.
Thule
Baffin Bay
GREENLAND
CANADA
ALASKA
GREENLAND
Nome
Umiat
Yukon R.
Tanana
ALASKA
Fairbanks
MT. McKINLEY - 20,269
Anchorage
Matanuska
Seward
KODIAK I.
Dawson
Klondike
Mackenzie R.
NORTH MAGNETIC POLE
BANKS I.
DEVON I.
VICTORIA I.
PR. OF WALES I.
Davis Strait
Narsarssuak
BAFFIN I.
NORTHWEST TERRITORIES
Port Radium
Repulse Bay
CIRCLE
ARCTIC
Frobisher Bay
Atlantic
Gt. Bear Lake
Southampton Island
Hudson Strait
MT. LOGAN 19,850
YUKON
Norman Wells
Whitehorse
ALASKA HIGHWAY
Yellowknife
CHUBB CRATER
Nain
Indian Harbor
Cartwright
Juneau
Sitka
Pacific Ocean
Gt. Slave Lake
Ft. Chimo
LABRADOR
Hudson Bay
Uranium City
Goose Bay
(Nfld.)
Gander
St. John's
Ft. Nelson
Peace R.
GoldFields
Churchill R.
Athabasca R.
Burnt Creek
R.R. UNDER CONST.
BRITISH COLUMBIA
Ketchikan
Prince Rupert
Ft. St. John
ALBERTA
SASKATCHEWAN
MANITOBA
QUEBEC
NEWFOUNDLAND
Stephenville
ANTICOSTI I.
Seven Islands
Prince George
La Ronge
Flin Flon
Moosonee
GASPÉ
Glace Bay
C. BRETON I.
Edmonton
Lake Winnipeg
Fredericton
N.B.
PR. EDWARD I.
VANCOUVER I.
Banff
Kapuskasing
Cochrane
Quebec
Halifax
Vancouver
Calgary
Saskatoon
L. Nipigon
St. Lawrence
NOVA SCOTIA
Victoria
Regina
Winnipeg
Ft. Williams
Montreal
ME.
Bay of Fundy
Seattle
WASH.
MONT.
N. D.
MINN.
Chalk River
Ottawa
VT.
N.H.
Sault Ste. Marie
Toronto
MASS.
ORE.
IDAHO
WYO.
S. D.
WIS.
MICH.
N.Y.
Detroit
Windsor
PA.
NORTH AMERICA
SOUTH AMERICA
0 Miles 400
DEW LINE = DISTANT EARLY WARNING LINE


CENTRAL AMERICA AND THE WEST INDIES
Capitals
0 Miles 1000
UNITED STATES
Mississippi R.
New Orleans
Houston
Chihuahua
Monterey
MEXICO
Gulf of Mexico
Tampico
Mexico City
Vera Cruz
Acapulco
Pacific Ocean
Miami
Nassau
Havana
(Br.)
(U.S.)
(Fr.)
Santiago
Port au Prince
Ciudad Trujillo
San Juan
Kingston
YUCATAN
Belize
BR. HONDURAS
GUATEMALA
Guatemala
Tegucigalpa
San Salvador
EL SALVADOR
Managua
San José
COSTA RICA
Panama
Caribbean Sea
ARUBA
BONAIRE
(Neth.)
TOBAGO
BARBADOS
Caracas
VENEZUELA
COLOMBIA
Bogotá
Georgetown
BRITISH GUIANA
Paramaribo
DUTCH GUIANA
Cayenne
FRENCH GUIANA
SOUTH AMERICA
BRAZIL
Atlantic Ocean
Caribbean Sea
Colón (Panama)
Cristobal
Gatun Lake
GAILLARD CUT
Panama
Balboa
Gulf of Panama
Miles 20


C A N A D A
Pacific Ocean
Columbia River
Port Angeles
Bellingham
Everett
Seattle
Tacoma
Hoquiam
OLYMPIA
WASHINGTON
Spokane
Kalispell
Coeur d'Alene
Missoula
Havre
Missouri R.
Williston
Minot
Grand Forks
Astoria
Kelso
Vancouver
Yakima
Portland
SALEM
Oregon City
The Dalles
Walla Walla
Lewiston
Moscow
Anaconda
Great Falls
MONTANA
HELENA
Dickinson
NORTH DAKOTA
Mandan
BISMARCK
Fargo
Wahpeton
Corvallis
Albany
Pendleton
La Grande
Butte
Bozeman
Billings
Miles City
Marshfield
Eugene
Bend
Baker
Salmon
Livingston
Aberdeen
Caldwell
BOISE
Idaho Falls
YELLOWSTONE NAT'L PARK
Sheridan
Lead
SOUTH DAKOTA
Watertown
Grants Pass
Medford
Klamath Falls
Nampa
Snake R.
PIERRE
Huron
Rapid City
Eureka
Yreka
Twin Falls
Pocatello
WYOMING
Lander
Sioux Falls
Redding
Montpelier
Casper
Rock Springs
Rawlins
Yankton
Winnemucca
Elko
Brigham
Logan
Great Salt Lake
Ogden
Scotts Bluff
Norfolk
Marysville
Reno
Sparks
NEVADA
Tooele
SALT LAKE CITY
Green River
CHEYENNE
Laramie
Platte R.
NEBRASKA
North Platte
Santa Rosa
Valley
SACRAMENTO
CARSON CITY
Austin
Provo
Fort Collins
Greeley
Kearney
LINCOLN
Hastings
Beatrice
Stockton
Oakland
San Francisco
San Jose
Ely
Price
Grand Junction
Longmont
DENVER
Tonopah
Goldfield
Leadville
Colorado Springs
Monterey
Fresno
Salinas
Visalia
Cedar City
St. George
UTAH
COLORADO
KANSAS
Salina
Pueblo
Garden City
Las Vegas
Durango
La Junta
Arkansas R.
Wichita
Trinidad
Arkansas City
San Luis Obispo
Santa Barbara
Bakersfield
Colorado
Grand Canyon
Raton
Ponca City
Enid
Los Angeles
Glendale
Pomona
Riverside
Needles
Flagstaff
SANTA FE
Rio Grande
Gallup
Las Vegas
Borger
OKLAHOMA CITY
Long Beach
Santa Ana
Palm Springs
Prescott
ARIZONA
Albuquerque
Tucumcari
Amarillo
Pampa
OKLAHOMA
San Diego
Brawley
PHOENIX
Mesa
Globe
Socorro
Clovis
Red R.
Lawton
Ardmore
Yuma
Portales
Wichita Falls
Roswell
Lubbock
Denison
Tucson
Silver City
Rio Grande
Hobbs
Abilene
Denton
Fort Worth
Nogales
Bisbee
Douglas
Las Cruces
Sweetwater
Cleburne
Carlsbad
El Paso
Big Spring
TEXAS
San Angelo
Waco
Temple
Taylor
AUSTIN
Del Rio
San Antonio
Victoria
MEXICO
Rio Grande
Corpus Christi
Laredo
UNITED STATES


ST. LAWRENCE SEAWAY
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Lake Champlain
Atlantic Ocean
Gulf of Mexico
Quebec
Montreal
Ottawa
Toronto
Buffalo
Niagara Falls
Jamestown
Presque Isle
Bangor
AUGUSTA
MONTPELIER
Portland
Portsmouth
CONCORD
BOSTON
New Bedford
PROVIDENCE
HARTFORD
ALBANY
NEW YORK
Scranton
Newark
New York
TRENTON
Philadelphia
DOVER
WASHINGTON, D.C.
Chesapeake Bay
Norfolk
Portsmouth
Durham
RALEIGH
Goldsboro
Wilmington
Florence
COLUMBIA
CHARLESTON
Charleston
Savannah
Brunswick
Jacksonville
St. Augustine
Daytona Beach
Orlando
Tampa
St. Petersburg
Lake Okeechobee
Fort Myers
West Palm Beach
Miami
Miami Beach
Key West
ATLANTA
Augusta
Macon
Columbus
Waycross
Valdosta
Thomasville
Gainesville
TALLAHASSEE
Pensacola
Dothen
Mobile
Biloxi
Gulfport
New Orleans
BATON ROUGE
Houston
Fort Arthur
Galveston
Beaumont
Bryan
Sabine R.
Shreveport
Alexandria
Natchez
Laurel
Hattiesburg
JACKSON
Vicksburg
Meridian
Dallas
Marshall
Monroe
Longview
Sherman
Durant
LITTLE ROCK
Pine Bluff
Texarkana
Clarksdale
Greenville
Columbus
Birmingham
Anniston
MONTGOMERY
Huntsville
Rome
Chattanooga
NASHVILLE
Knoxville
Bristol
Winston-Salem
Charlotte
Rock Hill
Columbia
Memphis
Jackson
Jonesboro
Fayetteville
Springfield
Joplin
Tulsa
Muskogee
Okmulgee
Cairo
Paducah
Bowling Green
Middlesboro
Louisville
Lexington
FRANKFORT
Bluefield
Roanoke
Evansville
E. St. Louis
Belleville
St. Louis
Kansas City
TOPEKA
JEFFERSON CITY
Emporia
Joseph
Kansas City
Omaha
Council Bluffs
DES MOINES
Sioux City
Waterloo
Mason City
Austin
Faribault
Mankato
Minneapolis
St. Cloud
Brainerd
Duluth
Superior
Houghton
Calumet
Marquette
Sault Ste. Marie
Cheboygan
Traverse City
Sheboygan
Green Bay
Eau Claire
La Crosse
Rochester
Oshkosh
Milwaukee
Racine
Beloit
MADISON
Grand Rapids
Saginaw
Flint
Detroit
LANSING
Toledo
Akron
Lima
Canton
Wheeling
Cleveland
Youngstown
Pittsburgh
HARRISBURG
Baltimore
ANNAPOLIS
Alexandria
Chicago
Rockford
Cedar Rapids
Rock Island
Peoria
Joliet
Gary
Fort Wayne
South Bend
Kokomo
Muncie
Dayton
COLUMBUS
Cincinnati
Decatur
SPRINGFIELD
Moberly
Kansas City
Keokuk
St. Joseph
Omaha
Fort Madison
INDIANAPOLIS
Evansville
Louisville
Bluefield
Roanoke
Norfolk
Portsmouth
Durham
RALEIGH
Goldsboro
Wilmington
Florence
Columbia
Charleston
Savannah
Brunswick
Jacksonville
St. Augustine
Daytona Beach
Orlando
Tampa
St. Petersburg
Lake Okeechobee
Fort Myers
West Palm Beach
Miami
Miami Beach
Key West


Paths of 1954-55 Hurricanes
CANADA
Quebec
Lawrence R.
Caribou
Presque Isle.
Houlton
MAINE
Calais
Georgian Bay
L. Huron
HAZEL Oct. 1954
Ottawa
Montreal
St.
CAROL Sept. 1954
Rum-ford
Water-ville
Bangor
AUGUSTA
Lewiston
Auburn
Berlin
MONTPELIER
Ogdensburg
Burlington
Lake Champlain
VT.
N.H.
Portland
Biddeford
EDNA Sept. 1954
Toronto
Lake Ontario
Watertown
Oswego
Rutland
CONCORD
Manchester
Portsmouth
Rome
Utica
Troy
Nashua
Lawrence
CONNIE Aug. 1955
Rochester
Syracuse
Pittsfield
Lowell
BOSTON
Buffalo
NEW YORK
ALBANY
MASS.
Worcester
Springfield
Fall River
Lake Erie
Jamestown
Elmira
Binghamton
HARTFORD
New Bedford
Newport
Scranton
Newburgh
PROVIDENCE R.I.
DIANE Aug. 1955
Meadville
Oil City
Wilkes-Barre
Bridgeport
CONN.
New Haven
New London
Cleveland
OHIO
PENNSYLVANIA
Patersono
Allentown
Newark
New York
Pittsburgh
HARRISBURG
Johnstown
Reading
TRENTON
Philadelphia
Atlantic Ocean
Wheeling
McKeesport
York
Lan-caster
CAMDEN
NEW JERSEY
Baltimore
Wilmington
Atlantic City
Fairmont
Potomac R.
ANNAPOLIS
MD.
DOVER DEL.
IONE Sept. 1955
WASHINGTON
Alexandria
W.VA.
Charlottesville
Charleston
RICHMOND
Chesapeake Bay
VIRGINIA
Roanoke
Newport News
Norfolk
Danville
Portsmouth
17 storms of hurricane force have entered U.S. between Cape Hatteras and Maine since '24
NEW YORK
CONN.
Ridgewood
Paterson
Passaic
Englewood
Montclair
NEW JERSEY
Hudson R.
White Plains
Yonkers
New Rochelle
BRONX
MANHATTAN
Jersey City
Newark
LA GUARDIA AIRPORT
Great Neck
Flushing
QUEENS
NASSAU
Jamaica
Mineola
Glen Cove
Oyster Bay
Huntington
Northport
Bridge
Norwalk
Stamford
Port Chester
Long
LONG
L. Ronkonkoma
SUF
Levittown
Hemp-stead
Farmingdale
Amityville
Bay Shore
Babylon
Great South
KINGS (BROOKLYN)
IDLEWILD AIRPORT
Valley Stream
Freeport
Rockville Cen.
RICHMOND (STATEN I.)
CONEY I.
ROCKAWAY BEACH
Atlantic Beach
Long Beach
JONES BEACH
FIRE ISLAND
Sandy Hook


Greensboro
Durham
TENN.
Knoxville
NORTH CAROLINA
RALEIGH
C. Hatteras
Asheville
Charlotte
Goldsboro
New Bern
Rock Hill
Greenville
Spartanburg
Huntsville
Rome
Greenwood
SOUTH
Florence
Wilmington
COLUMBIA
ATLANTA
ALA.
Augusta
CAROLINA
Georgetown
La Grange
Macon
Charleston
Columbus
Savannah R.
MONTGOMERY
GEORGIA
Savannah
Atlantic
Waycross
Brunswick
Thomasville
Valdosta
TALLAHASSEE
Jacksonville
St. Augustine
Gainesville
Ocean
Daytona Beach
FLORIDA
Gulf
of
Mexico
Orlando
Tampa
St. Petersburg
Lake
Okeechobee
Fort Myers
West
Palm Beach
Palm Beach
Miami
Miami Beach
30 storms of hurricane force have entered U.S. between Key West and Cape Hatteras since 1897
From Brownsville, Texas to Key West, Fla. 44 hurricanes have entered the U.S. since 1896
port
New London
Island
Sound
FISHERS I.
(N.Y.)
LITTLE GULL I.
GULL I.
PLUM I.
Orient
Block I.
Sound
Greenport
SHELTER I.
GARDINERS I.
To BLOCK I.
15 Miles
Port
Jefferson
Mattituck
Montauk
ISLAND
Riverhead
Peconic Bay
Sag
Harbor
Hampton
Bays
East Hampton
FOLK
Bridgehampton
Montauk Pt.
Patchogue
Eastport
Southampton
Ocean
Bay
Westhampton
Beach
Moriches Bay
Atlantic
0
Miles
20


MOUNTAIN TIME
CENTRAL TIME
EASTERN TIME
C A N A D A
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
WASH.
MONT.
N. DAK.
MINN.
IDAHO
ORE.
S. DAK.
WYO.
WISC.
MICH.
CAL.
NEV.
UTAH
NEBR.
IOWA
ILL.
IND.
OHIO
PENN.
N.Y.
COLO.
KANS.
MO.
KY.
W.VA.
VA.
ARIZ.
N. MEX.
OKLA.
TEXAS
ARK.
TENN.
N. CAR.
S. CAR.
MISS.
ALA.
GA.
LA.
FLA.
ME.
N.H.
MASS.
CONN.
R.I.
N.J.
MD.
DEL.
Mt. Rainier 14,408
Columbia R.
Snake R.
Missouri R.
Yellowstone
YELLOWSTONE NAT. PARK
BLACK HILLS
Mississippi R.
Des Moines R.
Platte R.
Missouri R.
Illinois R.
Ohio R.
Tennessee R.
Arkansas R.
Red R.
Canadian R.
Pecos R.
Rio Grande
Colorado R.
Sabine R.
Alabama R.
Savannah R.
Roanoke R.
Humboldt R.
Sacramento R.
Lake Tahoe
GR. SALT LAKE DESERT
Gt. Salt Lake
GREAT BASIN
Colorado R.
Pikes Pk. 14,110 ft.
Smoky Hill R.
Boulder Dam
DEATH VALLEY
MOJAVE DESERT
SAN BERNARDINO MTS.
GRAND CANYON NAT. PARK
PAINTED DESERT
Gila R.
Rio Grande
SACRAMENTO MTS.
Lake Okeechobee
THE EVERGLADES
SUPERIOR
MICHIGAN
HURON
ONTARIO
ERIE
ADIRONDACK MTS.
GREEN MTS.
WHITE MTS.
CATSKILL MTS.
ALLEGHENY MTS.
APPALACHIAN MTS.
SMOKY MTS.
CASCADE MTS.
SIERRA NEVADA MTS.
ROCKY MTS.
SACRAMENTO MTS.
GEOGRAPHICAL VIEW OF THE UNITED STATES


BRITISH ISLES
Atlantic
Ocean
North Sea
English Channel
Irish Sea
St. George Channel
Stromness
C. Wrath
ORKNEY IS.
Scapa Flow
John o'Groats
Thurso
Wick
Ullapool
HARRIS
I. of LEWIS
HEBRIDES
I. of SKYE
Kyle
Moray Firth
Inverness
GLEN MORE
Loch Ness
HIGHLANDS
Peterhead
I. of MULL
Grampian Mts.
Aberdeen
SCOTLAND
ISLAY
Perth
Dundee
BELL ROCK
Clydebank
St. Andrews
Greenock
Firth of Forth
Glasgow
Edinburgh
Londonderry
North Channel
Prestwick
Clyde
Tweed R.
Berwick
HOLY ISLAND
Ayr
Southern Uplands
N. IRELAND
L. Neagh
Carrick
Belfast
Dumfries
ROMAN WALL
Downpatrick
Carlisle
PENNINES
Newcastle
South Shields
Sunderland
Drogheda
I. of MAN
LAKE DIST.
Douglas
IRELAND
Dublin
Middlesbrough
Liverpool
Blackpool
Holyhead
Birkenhead
Manchester
York
Wicklow
ANGLESEY
Leeds
Waterford
Bangor
Hull
Wexford
Chester
Sheffield
MTS.
WALES
Stoke
Derby
Nottingham
Cambrian
Trent R.
The Wash
Milford Haven
Birmingham
Coventry
THE FENS
Stratford on Avon
Norwich
Swansea
ENGLAND
Severn R.
Cambridge
Cardiff
Bristol
Oxford
Ipswich
Barnstaple
Bath
LONDON
Harwich
Exeter
Salisbury
Thames R.
THE MOORS
Thames
LAND'S END
Southampton
Penzance
Plymouth
Canterbury
THE DOWNS
Dover
Weymouth
Bournemouth
I. of WIGHT
Portsmouth
Brighton
Hastings
Strait of Dover
Calais
Cherbourg
FRANCE
0 Miles 100
87


LONDON
ENGLAND
Str. of Dover
Calais
BEL.
Dunkerque
Valenciennes
LUX.
SAAR
GERMANY
Rhine R.
Lille
Amiens
Cambrai
Laon
Sedan
Rheims
Nancy
Strasbourg
Dieppe
Compiègne
Rouen
Le Havre
Beauvais
Châlons-sur-M.
Metz
Baccarat
VOSGES
English Channel
Cherbourg
Caen
St. Lo
Versailles
PARIS
Fontainebleau
Seine R.
Troyes
Sens
Dijon
SWITZ.
JURA MTS.
Saône R.
Geneva
CHANNEL IS. (Br.)
Mont St. Michel
NORMANDY
Chartres
Orleans
Loire R.
Blois
LeMans
Rennes
Brest
BRITTANY
Tours
Bourges
Chalon
Chamonix
15,771
ITALY
Lorient
Loire R.
Châteauroux
Vichy
Rhône R.
Chambéry
St. Nazaire
Nantes
Poitiers
Clermont-Ferrand
Lyon
St. Etienne
Grenoble
Limoges
6188'
CENTRAL PLATEAU
Rochefort
Cognac
Monte Carlo
Nice
Gironde R.
Brive
Orange
Arles
Avignon
Aix
RIVIERA
Bordeaux
Garonne R.
Nîmes
Montpellier
Albi
Toulon
Marseille
Bay of Biscay
Biarritz
Hendaye
LANDES
Toulouse
Narbonne
San Sebastián
Lourdes
Prades
Perpignan
Santander
PYRENEES
ANDORRA
Gijón
Bilbao
Ferrol
Oviedo
Gerona
Coruña
GALICIA
Ebro R.
Lérida
Leon
Burgos
Barcelona
Zaragoza
Vigo
Palencia
Tarragona
MINORCA
Douro R.
(Duero)
Valladolid
Tortosa
BALEARIC
Oporto
Salamanca
Teruel
MAJORCA
Palma
MADRID
Valencia
Coimbra
Tajo (Tagus) R.
Toledo
Júcar R.
IVIZA
ISLANDS
FORMENTERA
Alcázar
Albacete
Guadiana R.
Ciudad Real
Alicante
Mediterranean Sea
LISBON
Badajoz
Linares
Murcia
Evora
Setúbal
Córdoba
Guadalquivir R.
Cartagena
Algiers
Sevilla
ANDALUSIA
Granada
Malaga
Faro
La Linea
Oran
Cádiz
GIBRALTAR (Br.)
Strait of Gibraltar
Ceuta
INTERNATIONAL ZONE
Tangier
FRANCE
SPAIN
& PORTUGAL
△ MOUNTAIN PEAK
Heights in feet
0
Miles
300


Basel
Neuchâtel
Zürich
Bern
L. Constance
GERMANY
BAVARIA
Linz
Danube R.
Oberammergau
Garm. Partenkirchen
Lausanne
Luzern
LIECHTEN-STEIN
Inn
Salzburg
VIENNA
L. Geneva
ST. GOTTARD
Berchtesgaden
Geneva
Brig
Davos
Innsbruck
BRENNER
AUSTRIA
Wiener Neustadt
MATTERHORN
St. Moritz
TYROL
GROSS GLOCKNER 12,461
MT. BLANC 15,780
SIMPLON
Locarno
L. Como
Bolzano
DOLOMITES
Graz
G.St. BERNARD
Piave R.
Villach
Como
Bergamo
Trento
Udine
Turin
Milan
L. Garda
Verona
Gorizia
Asti
Pavia
Padova (Padua)
Trieste
FRANCE
Alessandria
Po R.
Cremona
Adige R.
Venice
Zagreb
Cuneo
Parma
Ferrara
San Remo
Genoa
Bologna
Pola
YUGOSLAVIA
Nice
RIVIERA
La Spezia
Ravenna
Monte Carlo, MONACO
Pisa
Arno R.
Florence
Rimini
DALMATIAN COAST
Leghorn
SAN MARINO
Siena
Ancona
TUSCANY
Bastia
Perugia
Assisi
Split
CORSICA (Fr.)
ELBA
Adriatic Sea
Ajaccio
Viterbo
Rieti
Pescara
Tiber R.
VATICAN CITY
ROME
Chieti
Ostia
Olbia
Sassai
Anzio
Cassino
Alghero
Foggia
Manfredonia
Gaeta
Capua
Oristano
Naples
VESUVIUS
Pompei
Bari
SARDINIA
Sorrento
CAPRI
Cagliari
Salerno
Potenza
Brindisi
Taranto
Tyrrhenian Sea
Cosenza
STROMBOLI
Mediterranean Sea
Palermo
Catanzaro
Messina
Marsala
MT. ETNA 10,741
Reggio Calabria
Enna
Agrigento
Str. of Messina
SICILY
Catania
Ionian Sea
Syracuse
Ragusa
ITALY
AUSTRIA
SWITZERLAND
MOUNTAIN PASS
MOUNTAIN PEAK
0
Miles
200
MALTA (Br.)
89

THIS IS AMERICA

Statistics With Commentary Organized to Show America's Social and Economic Growth and Trends. Economic Tables and Charts May Be Found on Pages 705-734.

Population and Vital Data Compiled by

STATISTICAL BUREAU

of the

METROPOLITAN LIFE INSURANCE CO.

POPULATION

The population of the U. S. (including the Armed Forces overseas) totaled about 165 million in mid-1955, a gain of over 14 million since the census was taken in April 1950, and of about 33½ million since 1940. The population gain in each year beginning with 1947 has topped 2½ million. The great bulk of this increase reflects the large excess of births over deaths, immigration having played a minor role. It is expected that our population will continue to grow rapidly for the next two decades, but the extent of the increase will depend very largely upon the future course of the birth rate. If the present high birth rate continues, the U. S. population will pass 200 million before 1970 and will exceed 220 million by 1975, according to estimates by the Bureau of the Census. Even if the birth rate drops considerably, it is likely that our population will approximate 228 million within 20 years.

Population of the Continental U. S.

Source: U. S. Bureau of the Census.

Colonial estimates		National censuses				Projections	
Year	Population	Year	Population	Land area, sq. mi.	Pop. per sq. mi.	Year	Population
							NOTE A
1610	210	1790	3,929,214	867,980	4.5	1960	179,358,000
1620	2,499	1800	5,308,483	867,980	6.1	1965	193,346,000
1630	5,700	1810	7,239,881	1,685,865	4.3	1970	209,380,000
1640	27,947	1820	9,638,453	1,753,588	5.5	1975	228,463,000
							NOTE B
1650	51,700	1830	12,866,020	1,753,588	7.3		
1660	84,800	1840	17,069,453	1,753,588	9.7	1960	177,840,000
1670	114,500	1850	23,191,876	2,944,337	7.9	1965	190,296,000
1680	155,600	1860	31,443,321	2,973,965	10.6	1970	204,620,000
1690	213,500	1870	39,818,449	2,973,965	13.4	1975	221,522,000
							NOTE C
1700	275,000	1880	50,155,783	2,973,965	16.9		
1710	357,500	1890	62,947,714	2,973,965	21.2	1960	177,840,000
1720	474,388	1900	75,994,575	2,974,159	25.6	1965	190,296,000
1730	654,950	1910	91,972,266	2,973,890	30.9	1970	202,984,000
1740	889,000	1920	105,710,620	2,973,776	35.5	1975	214,580,000
							NOTE D
1750	1,207,000	1930	122,775,046	2,977,128	41.2		
1760	1,610,000	1940	131,669,275	2,977,128	44.2	1960	176,450,000
1770	2,205,000	1950	151,132,000§	2,974,726	50.8	1965	186,261,000
1780	2,781,000	1955*	164,367,000§	2,974,726	55.3	1970	196,370,000
						1975	206,907,000

* Estimate. § Includes armed forces overseas. NOTE A: Projections assuming birth rates of 1954–55 remain constant. NOTE B: Projections assuming birth rates of 1950–53 remain constant. NOTE C: Projections assuming birth rates of 1950–53 remain constant to 1965 and then decline. NOTE D: Projections assuming birth rates of 1950–53 decline rapidly to roughly the prewar level by 1975.



Source: U. S. Bureau of the Census. *Pictograph Corp.*

United States Population Distribution by Age, Race, Nativity and Sex, 1850–1950

Source: Mortimer Spiegelman, *Introduction to Demography.*

Year	Total	Age					Race and Nativity			
							White			
		Under 5	5–19	20–44	45–64	65 and over	Total	Native born	Foreign born	Nonwhite
	Per cent distribution									
1850*.....	100.0	15.1	37.4	35.1	9.8	2.6	84.3	74.6	9.7	15.7
1860**.....	100.0	15.4	35.8	35.7	10.4	2.7	85.6	72.6	13.0	14.4
1870**.....	100.0	14.3	35.4	35.4	11.9	3.0	87.1	72.9	14.2	12.9
1880**.....	100.0	13.8	34.3	35.9	12.6	3.4	86.5	73.4	13.1	13.5
1890†.....	100.0	12.2	33.9	36.9	13.1	3.9	87.5	73.0	14.5	12.5
1900.....	100.0	12.1	32.3	37.8	13.7	4.1	87.9	74.5	13.4	12.1
1910.....	100.0	11.6	30.4	39.1	14.6	4.3	88.9	74.4	14.5	11.1
1920.....	100.0	11.0	29.8	38.4	16.1	4.7	89.7	76.7	13.0	10.3
1930.....	100.0	9.3	29.5	38.3	17.5	5.4	89.8	78.4	11.4	10.2
1940.....	100.0	8.0	26.4	38.9	19.8	6.9	89.8	81.1	8.7	10.2
1950‡.....	100.0	10.7	23.2	37.7	20.3	8.1	89.5	82.8	6.7	10.5
	Males per 100 females									
1850*.....	104.3	102.4	100.9	108.1	106.4	101.3	105.2	103.1	123.8	99.1
1860**.....	104.7	102.4	101.2	107.9	111.5	98.3	105.3	103.7	115.1	101.2
1870**.....	102.2	102.9	101.2	99.2	114.5	100.5	102.8	100.6	115.3	98.4
1880**.....	103.6	103.0	101.3	104.0	110.2	101.4	104.0	102.1	115.9	100.7
1890†.....	105.0	103.6	101.4	107.3	108.3	104.2	105.4	102.9	118.7	102.2
1900.....	104.4	102.1	100.9	105.8	110.7	102.0	104.9	102.8	117.4	101.0
1910.....	106.0	102.5	101.3	108.1	114.4	101.1	106.6	102.7	129.2	101.3
1920.....	104.0	102.5	100.8	102.8	115.2	101.3	104.4	101.7	121.7	100.9
1930.....	102.5	103.0	101.4	100.5	109.1	100.5	102.9	101.1	115.8	99.1
1940.....	100.7	103.2	102.0	98.1	105.2	95.5	101.2	100.1	111.1	96.7
1950‡.....	99.0	103.9	102.9	97.0	100.2	89.6	99.4	99.0	103.9	96.2

* Excludes nonwhite races other than Negro. ** Excludes Indians in Indian Territory and on Indian reservations. † The age figures exclude all persons residing on Indian reservations, whether white or nonwhite; these persons are included in the race and nativity distributions. ‡ Includes armed forces overseas and other persons abroad. NOTE: For 1850 and 1860, the data in the census reports at ages 40–49 and 60–69 are published in 10-year age groupings; these were subdivided into 5-year age groupings by the author.

The aged in the U. S. are increasing in proportion to the total population. In 1900, about 4% of our people were over 65; now more than 8% are over 65. But since 1940, the proportion of young children has also been increasing. Also, in 1950, for the first time in our history, our country has an excess of females over males.

Despite heavy immigration, the foreign-born whites have never constituted more than 15% of the American population. In 1950, this proportion was halved.

Distribution of U. S. Population According to Size of Place, 1790 to 1950

Source: U. S. Bureau of the Census.

Census year	Total population	Population distribution (Total for year = 100%)					Number of urban places of specified size		
		Total urban	Urban places of			Total rural			
			1,000,000 or more	100,000 to 1,000,000	Under 100,000		1,000,000 or more	100,000 to 1,000,000	Under 100,000
1790	3,929,214	5.1	—	—	5.1	94.9	—	—	24
1800	5,308,483	6.1	—	—	6.1	93.9	—	—	33
1810	7,239,881	7.3	—	—	7.3	92.7	—	—	46
1820	9,638,453	7.2	—	1.3	5.9	92.8	—	1	60
1830	12,866,020	8.8	—	1.6	7.2	91.2	—	1	89
1840	17,069,453	10.8	—	3.0	7.8	89.2	—	3	128
1850	23,191,876	15.3	—	5.1	10.2	84.7	—	6	230
1860	31,443,321	19.8	—	8.4	11.4	80.2	—	9	383
1870	38,558,371	25.7	—	10.7	15.0	74.3	—	14	649
1880	50,155,783	28.2	2.4	10.0	15.8	71.8	1	19	919
1890	62,947,714	35.1	5.8	9.6	19.7	64.9	3	25	1,320
1900	75,994,575	39.7	8.5	10.2	21.0	60.3	3	35	1,699
1910	91,972,266	45.7	9.2	12.9	23.6	54.3	3	47	2,212
1920	105,710,620	51.2	9.6	16.3	25.3	48.8	3	65	2,654
1930	122,775,046	56.2	12.3	17.3	26.6	43.8	5	88	3,072
1940	131,669,275	56.5	12.1	16.8	27.6	43.5	5	87	3,372
1950*	150,697,361	59.0	11.5	18.0	29.5	41.0	5	102	3,916
1950†	150,697,361	64.0	11.5	17.9	34.6	36.0	5	101	4,635

* Old urban definition. † New urban definition.

The U. S. is becoming increasingly urbanized. During George Washington's Presidency, 95% of the American population was rural; during Lincoln's Presidency, the proportion was 80%; during Eisenhower's, it is only 36%.

Estimates of World Population by Regions, 1650–1950

Source: W. F. Willcox, 1650–1900; United Nations, 1920–1950.

Date	Estimated population in millions						
	Africa	North America*	Latin America†	Asia†† (exc. U.S.S.R.)	Europe and Asiatic U.S.S.R.‡	Oceania	World total
1650	100	1	7	257	103	2	470
1750	100	1	10	437	144	2	694
1800	100	6	23	505	193	2	919
1850	100	26	33	656	274	2	1,091
1900	141	81	63	857	423	6	1,571
1920	136	115	92	997	485	9	1,834
1930	155	134	110	1,069	530	10	2,008
1940	177	144	132	1,173	579	11	2,216
1950	199	166	162	1,272	594	13	2,406

* United States, Canada, Alaska, St. Pierre and Miquelon. † Mexico, Central and South America and Caribbean Islands ‡ Estimates for Asia and Europe by Willcox have been adjusted so as to include the population of Asiatic U.S.S.R. with that of Europe rather than Asia.

Distribution of U. S. Population by Race, 1850-1950

Source: U. S. Bureau of the Census.

Year	White	Nonwhite					
		Negro	Indian	Japanese	Chinese	All other	Total Nonwhite
1850	19,553,068	3,638,808	.....	.....	.....	.....	3,638,808
1860	26,922,537	4,441,830	44,021	.....	34,933	.....	4,520,784
1870	33,589,377	4,880,009	25,731	55	63,199	.....	4,968,994
1880	43,402,970	6,580,793	66,407	148	105,465	.....	6,752,813
1890	55,101,258	7,488,676	248,253	2,039	107,488	.....	7,846,456
1900	66,809,196	8,833,994	237,196	24,326	89,863	.....	9,185,379
1910	81,731,957	9,827,763	265,683	72,157	71,531	3,175	10,240,309
1920	94,820,915	10,463,131	244,437	111,010	61,639	9,488	10,889,705
1930	110,286,740	11,891,143	332,397	138,834	74,954	50,978	12,488,306
1940	118,214,870	12,865,518	333,969	126,947	77,504	50,467	13,454,405
1950	134,942,028	15,042,286	343,410	141,768	117,629	110,240	15,755,333
Urban	86,756,435	9,392,608	56,108	100,735	109,434	52,366	9,711,251
Rural nonfarm	28,470,339	2,491,377	178,678	14,260	5,844	20,827	2,710,986
Rural farm	19,715,254	3,158,301	108,624	26,773	2,351	37,047	3,333,096

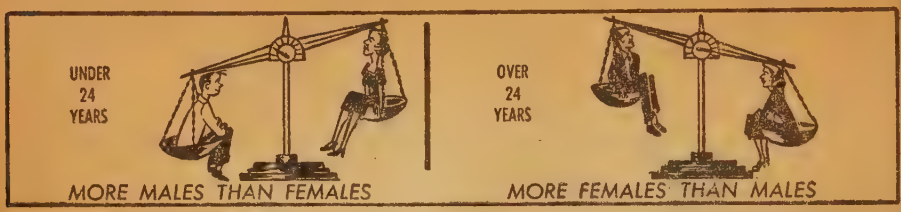
The proportion of Negroes in the American population has been declining; at the same time, the proportion of Negroes living in the North has been increasing.

U. S. Population by Age, Sex and Race, July 1, 1954

Source: U. S. Bureau of the Census.

Age	White		Nonwhite		Total	
	Male	Female	Male	Female	Male	Female
Under 5 years	7,884,000	7,552,000	1,188,000	1,182,000	9,072,000	8,735,000
Under 1 year	1,565,000	1,499,000	233,000	234,000	1,798,000	1,733,000
1 and 2 years	3,191,000	3,054,000	477,000	472,000	3,667,000	3,526,000
3 and 4 years	3,129,000	3,000,000	478,000	476,000	3,607,000	3,476,000
5 to 9 years	7,316,000	6,970,000	1,035,000	1,026,000	8,351,000	7,996,000
10 to 14 years	5,771,000	5,548,000	781,000	785,000	6,553,000	6,333,000
15 to 19 years	4,917,000	4,742,000	698,000	697,000	5,616,000	5,439,000
20 to 24 years	4,859,000	4,748,000	629,000	663,000	5,488,000	5,411,000
25 to 29 years	5,250,000	5,329,000	617,000	704,000	5,867,000	6,033,000
30 to 34 years	5,440,000	5,610,000	614,000	680,000	6,054,000	6,289,000
35 to 39 years	5,103,000	5,254,000	534,000	603,000	5,637,000	5,858,000
40 to 44 years	4,910,000	5,040,000	541,000	600,000	5,451,000	5,640,000
45 to 49 years	4,434,000	4,501,000	466,000	484,000	4,899,000	4,985,000
50 to 54 years	3,885,000	3,968,000	405,000	417,000	4,289,000	4,385,000
55 to 59 years	3,483,000	3,618,000	321,000	322,000	3,804,000	3,939,000
60 to 64 years	2,979,000	3,111,000	241,000	245,000	3,220,000	3,355,000
65 to 69 years	2,373,000	2,528,000	178,000	179,000	2,552,000	2,708,000
70 to 74 years	1,721,000	1,986,000	130,000	137,000	1,850,000	2,123,000
75 to 79 years	1,032,000	1,244,000	77,000	80,000	1,108,000	1,324,000
80 to 84 years	530,000	676,000	40,000	42,000	570,000	718,000
85 years and over	286,000	407,000	30,000	39,000	316,000	446,000
All ages	72,172,000	72,832,000	8,524,000	8,886,000	80,696,000	81,718,000
5 to 17 years	16,078,000	15,398,000	2,246,000	2,238,000	18,324,000	17,636,000
14 years and over	52,219,000	53,739,000	5,666,000	6,040,000	57,885,000	59,779,000
18 years and over	48,210,000	49,882,000	5,090,000	5,466,000	53,300,000	55,348,000
21 years and over	45,363,000	47,119,000	4,698,000	5,065,000	50,060,000	52,184,000
65 years and over	5,942,000	6,841,000	454,000	478,000	6,396,000	7,319,000
Median age, years	30.1	31.4	24.4	25.6	29.5	30.7

NOTE: Data relate to the total population of the continental United States, including the armed forces overseas.



Source: U. S. Bureau of the Census. *Pictograph Corp.*

Country of Birth of Foreign-Born Population in U. S., 1880-1950

Source: U. S. Bureau of the Census.

Country of birth	Total foreign born			Foreign-born white				
	1880	1890	1900	1910	1920	1930	1940	1950
All countries	6,679,943	9,249,560	10,341,276	13,345,545	13,712,754	13,983,405	11,419,138	10,161,168
England and Wales	747,462	1,009,171	934,099	958,934	879,894	868,889	657,335	584,615
Scotland	170,136	242,231	233,524	261,034	254,567	354,323	279,321	244,200
Northern Ireland	1,854,571	1,871,509	1,615,459	1,352,155	1,037,233	178,832	106,416	15,398
Ireland (Eire)						744,810	572,031	504,961
Norway	181,729	322,665	336,388	403,858	363,862	347,852	262,088	202,294
Sweden	194,337	478,041	582,014	665,183	625,580	595,250	445,070	324,944
Denmark[1]	64,196	132,543	153,690	181,621	189,154	179,474	138,175	107,897
Netherlands[2]	58,090	81,828	94,931	120,053	131,766	133,133	111,064	102,133
Belgium	15,535	22,639	29,757	49,397	62,686	64,194	53,958	52,891
Switzerland	88,621	104,069	115,593	124,834	118,659	113,010	88,293	71,515
France	106,971	113,174	104,197	117,236	152,890	135,265	102,930	107,924
Germany	1,966,742	2,784,894	2,663,418	[3]2,311,085	1,686,102	1,608,814	1,237,772	984,331
Poland	48,557	147,440	383,407	[3]937,884	1,139,978	1,268,583	993,479	861,184
Czechoslovakia	.....	.....	.....	.....	362,436	491,638	319,971	278,268
Austria	124,024	241,377	432,798	[3]845,506	575,625	370,914	479,906	408,785
Hungary	11,526	62,435	145,714	495,600	397,282	274,450	290,228	268,022
Yugoslavia	.....	.....	.....	.....	169,437	211,416	161,093	143,956
U.S.S.R.[4]	35,722	182,644	423,726	[3]1,184,382	1,400,489	1,153,624	1,040,884	894,844
Lithuania					135,068	193,606	165,771	147,765
Finland			62,641	129,669	149,824	142,478	117,210	95,506
Rumania	.....	.....	15,032	65,920	102,823	146,393	115,940	84,952
Greece	776	1,887	8,515	101,264	175,972	174,526	163,252	169,083
Italy	44,230	182,580	484,027	1,343,070	1,610,109	1,790,424	1,623,580	1,427,145
Spain	5,121	6,185	7,050	21,977	49,247	59,033	47,707	45,565
Portugal	8,138	15,996	30,608	57,623	67,453	69,993	62,347	54,337
Other Europe[5,4]	16,622	15,461	5,282	[3]27,372	34,571	70,499	60,511	86,375
Asia[6]	108,835	115,235	130,158	96,535	115,734	159,837	154,321	180,024
Canada—French	717,157	[7]302,496	[7]395,126	385,083	307,786	370,852	273,366	[7]238,409
Canada—Other[7]		678,442	784,796	816,063	823,334	931,631	792,114	756,153
Mexico	68,399	77,853	103,393	219,802	478,383	639,017	377,433	450,562
Other America	21,674	29,454	34,065	32,238	47,298	69,724	66,942	120,297
All other	20,772	27,311	31,868	40,167	67,512	70,921	58,630	69,658
Not reported								77,175

[1] Iceland included with Denmark prior to 1930; included with Other Europe 1930 to 1950. [2] Listed as Holland prior to 1910. [3] Persons reported in 1910 as of Polish mother tongue born in Austria, Germany, and U.S.S.R. have been deducted from their respective countries and combined as Poland. [4] Latvia and Estonia included with U.S.S.R. from 1860 to 1920 and with Other Europe from 1930 to 1950. [5] Includes 4,635 persons born in Serbia and 5,363 persons born in Montenegro, which became parts of Yugoslavia in 1918. [6] Includes Turkey in Europe. [7] Includes Newfoundland.

Immigrants to the United States, 1820–1953

Source: Mortimer Spiegelman, *Introduction to Demography.*

Period*	Number of immigrants	Immigrants per 1,000 total population in period	Area of departure (Total for period = 100%)						Percent males among immigrants	Percent of immigrants at early adult ages‡
			Europe		Americas		Asia	Other and not specified		
			North and West†	East and South	Canada	Other				
1820–30	151,824	1.2	67.9	2.2	1.7	6.2	0.0[1]	22.0	71.1	56.8
1831–40	599,125	3.9	81.7	1.0	2.3	3.3	0.0[1]	11.7	64.6	64.0
1841–50	1,713,251	8.4	92.9	0.3	2.5	1.2	0.0[1]	3.1	59.3	64.4
1851–60	2,598,214	9.3	93.6	0.8	2.3	0.6	1.6	1.1	57.5	66.9
1861–70	2,314,824	6.4	87.8	1.5	6.6	0.5	2.8	0.8	60.6	66.4
1871–80	2,812,191	6.2	73.6	7.2	13.7	0.7	4.4	0.4	61.4	67.0
1881–90	5,246,613	9.2	72.0	18.3	7.5	0.6	1.3	0.3	61.1	68.1
1891–00	3,687,564	5.3	44.6	51.9	0.1	1.0	1.9	0.5	62.3	78.4
1901–10	8,795,386	10.4	21.7	70.8	2.0	2.1	2.8	0.6	69.9	83.0
1911–20	5,735,811	5.7	17.4	58.9	12.9	7.0	3.4	0.4	63.5	78.8
1921–30	4,107,209	3.5	31.2	29.1	22.5	14.4	2.4	0.4	55.6	73.3
1931–40	528,431	0.4	37.6	28.3	20.5	9.8	2.9	0.9	43.4	66.3
1941–50	1,035,039	0.7	47.2	12.8	16.6	17.7	3.1	2.6	40.4	66.0
1951–53	641,671	1.4	52.5	13.8	14.9	14.2	3.3	1.3	46.1	61.2

* In most instances, the periods relate to fiscal years. † Includes Belgium, Denmark, France, Germany, Great Britain, Ireland, Luxemburg, Netherlands, Norway, Sweden, and Switzerland. ‡ 1820–1898, ages 15–40; 1899–1917, ages 14–44; 1918–1939, ages 16–44; 1940–1944, ages 16–45; 1945–1953, ages 16–44. [1] Rate less than .05.

In the decade before the Civil War, almost 95 per cent of our immigrants came from Northern and Western Europe. In the decade before World War I, 70 per cent of our immigrants came from Eastern and Southern Europe. More recently, about 30 per cent of our immigrants have been coming from the Americas. These figures represent the outstanding changes in the immigration flow in the past 100 years.

Immigrants and Emigrants; United States, 1911–1953

Source: U. S. Immigration and Naturalization Service and U. S. Bureau of the Census.

Period*	Immigrants	Emigrants	Excess of immigrants over emigrants	Period*	Immigrants	Emigrants	Excess of immigrants over emigrants
1911–15	4,459,831	1,444,530	3,015,301	1936–40	308,222	135,875	172,347
1916–20	1,275,980	702,464	573,516	1941–45	170,952	42,696	128,256
1921–25	2,638,913	697,397	1,941,516	1946–50	864,087	113,703	750,384
1926–30	1,468,296	347,679	1,120,617	1951–53	641,671	72,310	569,361
1931–35	220,209	323,863	−103,654				

* Fiscal years ending June 30.

Only once in our history did emigration exceed immigration and this was during the years 1931–35. Immigration once more has become important, but the annual average is less than 200,000. This might be compared with the period 1901–15, when the annual average was in the neighborhood of 900,000.

U. S. Population by States, 1790-1955

Source: 1790–1950, U. S. Bureau of the Census; 1955, Statistical Bulletin of the Metropolitan Life Insurance Co.

States	Population			1950			January 1955	
	1790	1850	1900	Population	Land area, sq. mi.	Pop. per sq. mi.	Population	Rank
Alabama	.....	771,623	1,828,697	3,061,743	51,078	59.9	3,140,000	18
Arizona	.....	.....	122,931	749,587	113,575	6.6	1,023,000	35
Arkansas	.....	209,897	1,311,564	1,909,511	52,675	36.6	1,916,000	31
California	.....	92,597	1,485,053	10,586,223	156,740	67.5	12,904,000	2
Colorado	.....	.....	539,700	1,325,089	103,922	12.8	1,459,000	33
Connecticut	237,946	370,792	908,420	2,007,280	4,899	409.7	2,251,000	27
Delaware	59,096	91,532	184,735	318,085	1,978	160.8	373,000	47
D. C.	.....	51,687	278,718	802,178	61	13,150.5	870,000	37
Florida	.....	87,445	528,542	2,771,305	54,262	51.1	3,636,000	15
Georgia	82,548	906,185	2,216,331	3,444,578	58,483	58.9	3,671,000	13
Idaho	.....	.....	161,772	583,637	82,769	7.1	620,000	44
Illinois	.....	851,470	4,821,550	8,712,176	55,935	155.8	9,239,000	4
Indiana	.....	988,416	2,516,462	3,934,224	36,205	108.7	4,276,000	11
Iowa	.....	192,214	2,231,853	2,621,073	56,045	46.8	2,644,000	22
Kansas	.....	.....	1,470,495	1,905,299	82,108	23.2	2,038,000	29
Kentucky	73,677	982,405	2,147,174	2,944,806	39,864	73.9	3,020,000	20
Louisiana	.....	517,762	1,381,625	2,683,516	45,162	59.4	2,987,000	21
Maine	96,540	583,169	694,466	913,774	31,040	29.4	930,000	36
Maryland	319,728	583,034	1,188,044	2,343,001	9,881	237.1	2,637,000	23
Massachusetts	378,787	994,514	2,805,346	4,690,514	7,867	596.2	5,000,000	9
Michigan	.....	397,654	2,420,982	6,371,766	57,022	111.7	7,126,000	7
Minnesota	.....	6,077	1,751,394	2,982,483	80,009	37.3	3,123,000	19
Mississippi	.....	606,526	1,551,270	2,178,914	47,248	46.1	2,219,000	28
Missouri	.....	682,044	3,106,665	3,954,653	69,226	57.1	4,191,000	12
Montana	.....	.....	243,329	591,024	145,878	4.1	635,000	43
Nebraska	.....	.....	1,066,300	1,325,510	76,663	17.3	1,372,000	34
Nevada	.....	.....	42,335	160,083	109,789	1.5	224,000	49
New Hampshire	141,885	317,976	411,588	533,242	9,017	59.1	533,000	45
New Jersey	184,139	489,555	1,883,669	4,835,329	7,522	642.8	5,312,000	8
New Mexico	.....	61,547	195,310	681,187	121,511	5.6	793,000	39
New York	340,120	3,097,394	7,268,894	14,830,192	47,944	309.3	15,539,000	1
North Carolina	393,751	869,039	1,893,810	4,061,929	49,097	82.7	4,289,000	10
North Dakota	.....	.....	319,146	619,636	70,057	8.8	638,000	42
Ohio	.....	1,980,329	4,157,545	7,946,627	41,000	193.8	8,655,000	5
Oklahoma	.....	.....	790,391*	2,233,351	69,031	32.4	2,274,000	25
Oregon	.....	13,294	413,536	1,521,341	96,315	15.8	1,656,000	32
Pennsylvania	434,373	2,311,786	6,302,115	10,498,012	45,045	233.1	10,854,000	3
Rhode Island	68,825	147,545	428,556	791,896	1,058	748.5	832,000	38
South Carolina	249,073	668,507	1,340,316	2,117,027	30,305	69.9	2,253,000	26
South Dakota	.....	.....	401,570	652,740	76,536	8.5	669,000	41
Tennessee	35,691	1,002,717	2,020,616	3,291,718	41,797	78.8	3,388,000	17
Texas	.....	212,592	3,048,710	7,711,194	263,513	29.3	8,579,000	6
Utah	.....	11,380	276,749	688,862	82,346	8.4	766,000	40
Vermont	85,425	314,120	343,641	377,747	9,278	40.7	386,000	46
Virginia	747,610	1,421,661	1,854,184	3,318,680	39,893	83.2	3,651,000	14
Washington	.....	.....	518,103	2,378,963	66,786	35.6	2,560,000	24
West Virginia	.....	.....	958,800	2,005,552	24,080	83.3	1,950,000	30
Wisconsin	.....	305,391	2,069,042	3,434,575	54,706	62.8	3,602,000	16
Wyoming	.....	.....	92,531	290,529	97,506	3.0	316,000	48

* Includes population of Indian Territory: 1900, 392,060.

The American people are highly mobile. During the past 15 years, the West has experienced a marked influx of population from other sections of the country, principally the South and Midwest. New York state still ranks first, but California is a close second with 12,900,000 people.

The cities of the U. S. are growing at uneven rates. Thus, over the decade 1940–50 Detroit's population increased 13.9%, Los Angeles' increased 31%, and Albuquerque's increased 173.1%.

Population and Area of Major U. S. Cities

(Over 50,000 population in 1950)

Source: U. S. Bureau of the Census.

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940–50	1950 rank	Area sq. mi.*
Akron, Ohio	208,435	255,040	244,791	274,605	12.2	39	53.7
Alameda, Calif.	28,806	35,033	36,256	64,430	77.7	184	10.7
Albany, N. Y.	113,344	127,412	130,577	134,995	3.4	68	19.0
Albuquerque, N. Mex.	15,157	26,570	35,449	96,815	173.1	112	47.9
Alexandria, Va.	18,060	24,149	33,523	61,787	84.3	192	7.5
Alhambra, Calif.	9,096	29,472	38,935	51,359	31.9	224	7.0
Allentown, Pa.	73,502	92,563	96,904	106,756	10.2	99	15.9
Altoona, Pa.	60,331	82,054	80,214	77,177	−3.8	150	10.0
Amarillo, Tex.	15,494	43,132	51,686	74,246	43.6	155	20.9
Asheville, N. C.	28,504	50,193	51,310	53,000	3.3	215	14.5
Atlanta, Ga.	200,616	270,366	302,288	331,314	9.6	33	36.9
Atlantic City, N. J.	50,707	66,198	64,094	61,657	−3.8	193	11.5
Augusta, Ga.	52,548	60,342	65,919	71,508	8.5	165	9.8
Aurora, Ill.	36,397	46,589	47,170	50,576	7.2	230	8.1
Austin, Tex.	34,876	53,120	87,930	132,459	50.6	72	32.1
Baltimore, Md.	733,826	804,874	859,100	949,708	10.5	6	78.7
Baton Rouge, La.	21,782	30,729	34,719	125,629	261.8	81	30.2
Bay City, Mich.	47,554	47,355	47,956	52,523	9.5	218	9.6
Bayonne, N. J.	76,754	88,979	79,198	77,203	−2.5	149	5.2
Beaumont, Tex.	40,422	57,732	59,061	94,014	59.2	118	31.4
Berkeley, Calif.	56,036	82,109	85,547	113,805	33.0	90	9.5
Berwyn, Ill.	14,150	47,027	48,451	51,280	5.8	225	3.8
Bethlehem, Pa.	50,358	57,892	58,490	66,340	13.4	176	18.6
Binghamton, N. Y.	66,800	76,662	78,309	80,674	3.0	139	10.1
Birmingham, Ala.	178,806	259,678	267,583	326,037	21.8	34	65.3
Boston, Mass.	748,060	781,188	770,816	801,444	4.0	10	47.8
Bridgeport, Conn.	143,555	146,716	147,121	158,709	7.9	63	14.6
Brockton, Mass.	66,254	63,797	62,343	62,860	0.8	191	21.4
Buffalo, N. Y.	506,775	573,076	575,901	580,132	0.7	15	39.4
Burbank, Calif.	2,913	16,662	34,337	78,577	128.8	146	16.8
Cambridge, Mass.	109,694	113,643	110,879	120,740	8.9	86	6.2
Camden, N. J.	116,309	118,700	117,536	124,555	6.0	85	8.6
Canton, Ohio	87,091	104,906	108,401	116,912	7.9	88	14.1
Cedar Rapids, Iowa	45,566	56,097	62,120	72,296	16.4	161	25.4
Charleston, S. C.	67,957	62,265	71,275	70,174	−1.5	170	5.1
Charleston, W. Va.	39,608	60,408	67,914	73,501	8.2	159	9.6
Charlotte, N. C.	46,338	82,675	100,899	134,042	32.8	69	30.0
Chattanooga, Tenn.	57,895	119,798	128,163	131,041	2.2	73	28.0
Chester, Pa.	58,030	59,164	59,285	66,039	11.4	179	4.7
Chicago, Ill.	2,701,705	3,376,438	3,396,808	3,620,962	6.6	2	207.5
Cicero, Ill.	44,995	66,602	64,712	67,544	4.4	173	5.8
Cincinnati, Ohio	401,247	451,160	455,610	503,998	10.6	18	75.1
Cleveland, Ohio	796,841	900,429	878,336	914,808	4.2	7	75.0
Cleveland Heights, Ohio	15,236	50,945	54,992	59,141	7.5	198	8.2
Clifton, N. J.	26,470	46,875	48,827	64,511	32.1	182	11.7
Columbia, S. C.	37,524	51,581	62,396	86,914	39.3	129	12.8
Columbus, Ga.	31,125	43,131	53,280	79,611	49.4	142	12.0
Columbus, Ohio	237,031	290,564	306,087	375,901	22.8	28	39.4
Corpus Christi, Tex.	10,522	27,741	57,301	108,287	89.0	97	21.5
Covington, Ky.	57,121	65,252	62,018	64,452	3.9	183	6.4
Cranston, R. I.	29,407	42,911	47,085	55,060	16.9	210	28.7
Dallas, Tex.	158,976	260,475	294,734	434,462	47.4	22	112.0
Davenport, Iowa	56,727	60,751	66,039	74,549	12.9	152	18.1
Dayton, Ohio	152,559	200,982	210,718	243,872	15.7	44	25.0
Dearborn, Mich.	2,470	50,358	63,584	94,994	49.4	117	25.3
Decatur, Ill.	43,818	57,510	59,305	66,269	11.7	177	9.3
Denver, Colo.	256,491	287,861	322,412	415,786	29.0	24	66.8
Des Moines, Iowa	126,468	142,559	159,819	177,965	11.4	53	54.9
Detroit, Mich.	993,678	1,568,662	1,623,452	1,849,568	13.9	5	139.6

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940–50	1950 rank	Area, sq. mi.*
Duluth, Minn.	98,917	101,463	101,065	104,511	3.4	102	62.3
Durham, N. C.	21,719	52,037	60,195	71,311	18.5	166	13.2
East Chicago, Ind.	35,967	54,784	54,637	54,263	−0.7	213	10.4
East Orange, N. J.	50,710	68,020	68,945	79,340	15.1	143	3.9
East St. Louis, Ill.	66,767	74,347	75,609	82,295	8.8	135	13.4
El Paso, Tex.	77,560	102,421	96,810	130,485	34.8	75	25.6
Elizabeth, N. J.	95,783	114,589	109,912	112,817	2.6	91	11.7
Erie, Pa.	93,372	115,967	116,955	130,803	11.8	74	18.8
Evanston, Ill.	37,234	63,338	65,389	73,641	12.6	158	8.2
Evansville, Ind.	85,264	102,249	97,062	128,636	32.5	78	18.0
Fall River, Mass.	120,485	115,274	115,428	111,963	−3.0	92	33.9
Flint, Mich.	91,599	156,492	151,543	163,143	7.7	60	29.3
Fort Wayne, Ind.	86,549	114,946	118,410	133,607	12.8	71	18.8
Fort Worth, Tex.	106,482	163,447	177,662	278,778	56.9	38	93.7
Fresno, Calif.	45,086	52,513	60,685	91,669	51.1	124	15.0
Gadsden, Ala.	14,737	24,042	36,975	55,725	50.7	207	27.2
Galveston, Tex.	44,255	52,938	60,862	66,568	9.4	175	8.1
Gary, Ind.	55,378	100,426	111,719	133,911	19.9	70	41.6
Glendale, Calif.	13,536	62,736	82,582	95,702	15.9	115	20.3
Grand Rapids, Mich.	137,634	168,592	164,292	176,515	7.4	55	23.4
Green Bay, Wis.	31,017	37,415	46,235	52,735	14.1	216	13.9
Greensboro, N. C.	19,861	53,569	59,319	74,389	25.4	153	18.2
Greenville, S. C.	23,127	29,154	34,734	58,161	67.4	201	16.2
Hamilton, Ohio	39,675	52,176	50,592	57,951	14.5	202	7.6
Hammond, Ind.	36,004	64,560	70,184	87,594	24.8	128	23.5
Harrisburg, Pa.	75,917	80,339	83,893	89,544	6.7	126	6.3
Hartford, Conn.	138,036	164,072	166,267	177,397	6.7	54	17.4
Hoboken, N. J.	68,166	59,261	50,115	50,676	1.1	229	1.0
Holyoke, Mass.	60,203	56,537	53,750	54,661	1.7	211	21.0
Houston, Tex.	138,276	292,352	384,514	596,163	55.0	14	160.0
Huntington, W. Va.	50,177	75,572	78,836	86,353	9.5	130	14.0
Indianapolis, Ind.	314,194	364,161	386,972	427,173	10.4	23	55.2
Irvington, N. J.	25,480	56,733	55,328	59,201	7.0	197	3.1
Jackson, Mich.	48,374	55,187	49,656	51,088	2.9	228	10.2
Jackson, Miss.	22,817	48,282	62,107	98,271	58.2	110	27.0
Jacksonville, Fla.	91,558	129,549	173,065	204,517	18.2	49	30.2
Jersey City, N. J.	298,103	316,715	301,173	299,017	−0.7	37	13.0
Johnstown, Pa.	67,327	66,993	66,668	63,232	−5.2	189	5.6
Joliet, Ill.	38,442	42,993	42,365	51,601	21.8	222	7.7
Kalamazoo, Mich.	48,487	54,786	54,097	57,704	6.7	203	8.8
Kansas City, Kans.	101,177	121,857	121,458	129,553	6.7	76	18.7
Kansas City, Mo.	324,410	399,746	399,178	456,622	14.4	20	80.6
Kenosha, Wis.	40,472	50,262	48,765	54,368	11.5	212	7.6
Knoxville, Tenn.	77,818	105,802	111,580	124,769	11.8	83	25.4
Lakewood, Ohio	41,732	70,509	69,160	68,071	−1.6	171	5.6
Lancaster, Pa.	53,150	59,949	61,345	63,774	4.0	186	4.3
Lansing, Mich.	57,327	78,397	78,753	92,129	17.0	121	14.1
Laredo, Tex.	22,710	32,618	39,274	51,910	32.2	221	13.5
Lawrence, Mass.	94,270	85,068	84,323	80,536	−4.5	140	6.7
Lexington, Ky.	41,534	45,736	49,304	55,534	12.6	209	5.7
Lima, Ohio	41,326	42,287	44,711	50,246	12.4	231	7.7
Lincoln, Nebr.	54,948	75,933	81,984	98,884	20.6	109	23.8
Little Rock, Ark.	65,142	81,679	88,039	102,213	16.1	105	21.0
Long Beach, Calif.	55,593	142,032	164,271	250,767	52.7	41	34.7
Lorain, Ohio	37,295	44,512	44,125	51,202	16.0	226	11.0
Los Angeles, Calif.	576,673	1,238,048	1,504,277	1,970,358	31.0	4	450.9
Louisville, Ky.	234,891	307,745	319,077	369,129	15.7	30	39.9
Lowell, Mass.	112,759	100,234	101,389	97,249	−4.1	111	12.9
Lubbock, Tex.	4,051	20,520	31,853	71,747	125.2	163	17.0
Lynn, Mass.	99,148	102,320	98,123	99,738	1.6	107	10.4
McKeesport, Pa.	46,781	54,632	55,355	51,502	−7.0	223	3.5
Macon, Ga.	52,995	53,829	57,865	70,252	21.4	169	12.0
Madison, Wis.	38,378	57,899	67,447	96,056	42.4	114	15.4
Malden, Mass.	49,103	58,036	58,010	59,804	3.1	195	4.8
Manchester, N. H.	78,384	76,834	77,685	82,732	6.5	134	32.1
Medford, Mass.	39,038	59,714	63,083	66,113	4.8	178	8.1
Memphis, Tenn.	162,351	253,143	292,942	396,000	35.2	26	104.2
Miami, Fla.	29,571	110,637	172,172	249,276	44.8	42	34.2
Milwaukee, Wis.	457,147	578,249	587,472	637,392	8.5	13	50.0
Minneapolis, Minn.	380,582	464,356	492,370	521,718	6.0	17	53.8

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940–50	1950 rank	Area, sq. mi.*
Mobile, Ala.	60,777	68,202	78,720	129,009	63.9	77	25.4
Montgomery, Ala.	43,464	66,079	78,084	106,525	36.4	100	26.1
Mount Vernon, N. Y.	42,726	61,499	67,362	71,899	6.7	162	4.1
Muncie, Ind.	36,524	46,548	49,720	58,479	17.6	200	10.0
Nashville, Tenn.	118,342	153,866	167,402	174,307	4.1	56	22.0
New Bedford, Mass.	121,217	112,597	110,341	109,189	−1.0	96	19.1
New Britain, Conn.	59,316	68,128	68,685	73,726	7.3	156	13.7
New Haven, Conn.	162,537	162,655	160,605	164,443	2.4	59	17.9
New Orleans, La.	387,219	458,762	494,537	570,445	15.3	16	199.4
New Rochelle, N. Y.	36,213	54,000	58,408	59,725	2.3	196	9.9
New York, N. Y.	5,620,048	6,930,446	7,454,995	7,891,957	5.9	1	315.1
Bronx borough	732,016	1,265,258	1,394,711	1,451,277	4.1	...	43.4
Brooklyn borough	2,018,356	2,560,401	2,698,285	2,738,175	1.5	...	76.1
Manhattan borough	2,284,103	1,867,312	1,889,924	1,960,101	3.7	...	22.3
Queens borough	469,042	1,079,129	1,297,634	1,550,849	19.5	...	113.0
Richmond borough	116,531	158,346	174,441	191,555	9.8	...	60.3
Newark, N. J.	414,524	442,337	429,760	438,776	2.1	21	23.6
Newton, Mass.	46,054	65,276	69,873	81,994	17.3	136	17.3
Niagara Falls, N. Y.	50,760	75,460	78,029	90,872	16.5	125	12.7
Norfolk, Va.	115,777	129,710	144,332	213,513	47.9	48	28.2
Oak Park, Ill.	39,858	63,982	66,015	63,529	−3.8	188	4.7
Oakland, Calif.	216,261	284,063	302,163	384,575	27.3	27	53.0
Ogden, Utah	32,804	40,272	43,688	57,112	30.7	206	16.6
Oklahoma City, Okla.	91,295	185,389	204,424	243,504	19.1	45	50.8
Omaha, Nebr.	191,601	214,006	223,844	251,117	12.2	40	40.7
Orlando, Fla.	9,282	27,330	36,736	52,367	42.5	219	14.1
Pasadena, Calif.	45,354	76,086	81,864	104,577	27.7	101	21.3
Passaic, N. J.	63,841	62,959	61,394	57,702	−6.0	204	3.1
Paterson, N. J.	135,875	138,513	139,656	139,336	−0.2	66	8.1
Pawtucket, R. I.	64,248	77,149	75,797	81,436	7.4	138	8.6
Peoria, Ill.	76,121	104,969	105,087	111,856	6.4	93	12.9
Philadelphia, Pa.	1,823,779	1,950,961	1,931,334	2,071,605	7.3	3	127.2
Phoenix, Ariz.	29,053	48,118	65,414	106,818	63.3	98	17.1
Pittsburgh, Pa.	588,343	669,817	671,659	676,806	0.8	12	54.2
Pittsfield, Mass.	41,763	49,677	49,684	53,348	7.4	214	40.9
Pontiac, Mich.	34,273	64,928	66,626	73,681	10.6	157	19.8
Port Arthur, Tex.	22,251	50,902	46,140	57,530	24.7	205	12.2
Portland, Maine	69,272	70,810	73,643	77,634	5.4	148	21.6
Portland, Oreg.	258,288	301,815	305,394	373,628	22.3	29	64.1
Portsmouth, Va.	54,387	45,704	50,745	80,039	57.7	141	10.2
Providence, R. I.	237,595	252,981	253,504	248,674	−1.9	43	17.9
Pueblo, Colo.	43,050	50,096	52,162	63,685	22.1	187	10.6
Quincy, Mass.	47,876	71,983	75,810	83,835	10.6	133	16.8
Racine, Wis.	58,593	67,542	67,195	71,193	5.9	167	9.2
Raleigh, N. C.	24,418	37,379	46,897	65,679	40.0	180	11.0
Reading, Pa.	107,784	111,171	110,568	109,320	−1.1	95	8.8
Richmond, Calif.	16,843	20,093	23,642	99,545	321.1	108	14.5
Richmond, Va.	171,667	182,929	193,042	230,310	19.3	46	37.1
Roanoke, Va.	50,842	69,206	69,287	91,921	32.7	122	26.5
Rochester, N. Y.	295,750	328,132	324,975	332,488	2.3	32	36.0
Rockford, Ill.	65,651	85,864	84,637	92,927	9.8	119	14.0
Sacramento, Calif.	65,908	93,750	105,958	137,572	29.8	67	16.9
Saginaw, Mich.	61,903	80,715	82,794	92,918	12.2	120	16.6
St. Joseph, Mo.	77,939	80,935	75,711	78,588	3.8	145	14.1
St. Louis, Mo.	772,897	821,960	816,048	856,796	5.0	8	61.0
St. Paul, Minn.	234,698	271,606	287,736	311,349	8.2	35	52.2
St. Petersburg, Fla.	14,237	40,425	60,812	96,738	59.1	113	52.2
Salt Lake City, Utah	118,110	140,267	149,934	182,121	21.5	52	53.9
San Angelo, Tex.	10,050	25,308	25,802	52,093	101.9	220	28.8
San Antonio, Tex.	161,379	231,542	253,854	408,442	60.9	25	69.5
San Bernardino, Calif.	18,721	37,481	43,646	63,058	44.5	190	19.5
San Diego, Calif.	74,361	147,995	203,341	334,387	64.4	31	99.4
San Francisco, Calif.	506,676	634,394	634,536	775,357	22.2	11	44.6
San Jose, Calif.	39,642	57,651	68,457	95,280	39.2	116	17.0
Santa Monica, Calif.	15,252	37,146	53,500	71,595	33.8	164	8.0
Savannah, Ga.	83,252	85,024	95,996	119,638	24.6	87	14.6
Schenectady, N. Y.	88,723	95,692	87,549	91,785	4.8	123	10.2
Scranton, Pa.	137,783	143,433	140,404	125,536	−10.6	82	24.9
Seattle, Wash.	315,312	365,583	368,302	467,591	27.0	19	70.8
Shreveport, La.	43,874	76,655	98,167	127,206	29.6	80	24.0

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940–50	1950 rank	Area, sq. mi.*
Sioux City, Iowa	71,227	79,183	82,364	83,991	2.0	132	45.0
Sioux Falls, S. Dak.	25,202	33,362	40,832	52,696	29.1	217	12.7
Somerville, Mass.	93,091	103,908	102,177	102,351	0.2	104	4.1
South Bend, Ind.	70,983	104,193	101,268	115,911	14.5	89	20.2
South Gate, Calif.	.....	19,632	26,945	51,116	89.7	227	7.0
Spokane, Wash.	104,437	115,514	122,001	161,721	32.6	62	41.5
Springfield, Ill.	59,183	71,864	75,503	81,628	8.1	137	10.4
Springfield, Mass.	129,614	149,900	149,554	162,399	8.6	61	31.7
Springfield, Mo.	39,631	57,527	61,238	66,731	9.0	174	13.6
Springfield, Ohio	60,840	68,743	70,662	78,508	11.1	147	12.1
Stamford, Conn.	35,096	46,346	47,938	74,293	55.0	154	37.6
Stockton, Calif.	40,296	47,963	54,714	70,853	29.5	168	11.8
Syracuse, N. Y.	171,717	209,326	205,967	220,583	7.1	47	25.3
Tacoma, Wash.	96,965	106,817	109,408	143,673	31.3	65	47.9
Tampa, Fla.	51,608	101,161	108,391	124,681	15.0	84	19.0
Terre Haute, Ind.	66,083	62,810	62,693	64,214	2.4	185	12.2
Toledo, Ohio	243,164	290,718	282,349	303,616	7.5	36	38.3
Topeka, Kans.	50,022	64,120	67,833	78,791	16.2	144	12.5
Trenton, N. J.	119,289	123,356	124,697	128,009	2.7	79	7.2
Troy, N. Y.	71,996	72,763	70,304	72,311	2.9	160	9.3
Tulsa, Okla.	72,075	141,258	142,157	182,740	28.5	51	26.7
Union City, N. J.	20,651	58,659	56,173	55,537	—1.1	208	1.3
Utica, N. Y.	94,156	101,740	100,518	101,531	1.0	106	15.8
Waco, Tex.	38,500	52,848	55,982	84,706	51.3	131	26.0
Washington, D. C.	437,571	486,869	663,091	802,178	21.0	9	61.4
Waterbury, Conn.	91,715	99,902	99,314	104,477	5.2	103	27.6
Waterloo, Iowa	36,230	46,191	51,743	65,198	26.0	181	31.3
Wheeling, W. Va.	56,208	61,659	61,099	58,891	—3.6	199	10.4
Wichita, Kans.	72,217	111,110	114,966	168,279	46.4	58	25.7
Wichita Falls, Tex.	40,079	43,690	45,112	68,042	50.8	172	14.1
Wilkes-Barre, Pa.	73,833	86,626	86,236	76,826	—10.9	151	6.9
Wilmington, Del.	110,168	106,597	112,504	110,356	—1.9	94	9.8
Winston-Salem, N. C.	48,395	75,274	79,815	87,811	10.0	127	18.8
Woonsocket, R. I.	49,496	49,376	49,303	50,211	1.8	232	8.6
Worcester, Mass.	179,754	195,311	193 694	203,486	5.1	50	37.0
Yonkers, N. Y.	100,176	134,646	142,598	152,798	7.2	64	17.2
York, Pa.	47,512	55,254	56,712	59,953	5.7	194	4.2
Youngstown, Ohio	132,358	170,002	167,720	168,330	0.4	57	32.8

* Land area as of April 1, 1950. NOTE: Increase in population from census to census includes that due to annexation of territory as well as to direct growth.

Territorial Expansion of the United States

Source: U. S. Bureau of the Census.

Accession	Date	Area, sq. mi.[1]
CONTINENTAL UNITED STATES		
Territory in 1790	....	888,811
Louisiana Purchase	1803	827,192
Florida	1819	58,560
By treaty with Spain	1819	13,443
Texas	1845	390,144
Oregon	1846	285,580
Mexican Cession	1848	529,017
Gadsden Purchase	1853	29,640
Total	....	3,022,387
OUTLYING TERRITORY		
Alaska Territory	1867	586,400
Hawaii Territory	1898	6,461
Puerto Rico	1899	3,435
Guam	1899	206
American Samoa	1900	76
Panama Canal Zone	1904	553
Corn Islands[2]	1914	4
Virgin Islands of U. S.	1947	133
Trust territory	1947	8,475
Total	....	605,743
Aggregate, 1950	....	3,628,130

[1] Total land and water area. [2] Leased from Nicaragua for 99 years.

Population of Possessions

Source: U. S. Bureau of the Census.

Area	1930	1940	1950
United States	122,775,046	131,669,275	150,697,36
Alaska	59,278	72,524	128,64
American Samoa	10,055	12,908	18,93
Canal Zone	39,467	51,827	52,82
Guam	18,509	22,290	59,49
Hawaii	368,336	423,330	499,79
Philippines	13,513,000	16,356,000	.....
Puerto Rico	1,543,913	1,869,255	2,210,70
Virgin Is. of U. S.	22,012	24,889	26,66
Total	138,349,616	150,502,298	153,694,42

The Working Population of the U. S., 1820–1950

Source: U. S. Bureau of the Census.

Year	Working population		Percent of working population in		Year	Working population		Percent of working population in	
	Number (thousands)	Percent of total population ages 10 and over*	Farm occupation	Nonfarm occupation		Number (thousands)	Percent of total population ages 10 and over*	Farm occupation	Nonfarm occupation
1820.....	2,881	44.4	71.8	28.2	1890.....	23,318	49.2	42.6	57.4
1830.....	3,932	45.5	70.5	29.5	1900.....	29,073	50.2	37.5	62.5
1840.....	5,420	46.6	68.6	31.4	1910.....	37,371	52.2	31.0	69.0
1850.....	7,697	46.8	63.7	36.3	1920.....	42,434	51.3	27.0	73.0
1860.....	10,533	47.0	58.9	41.1	1930.....	48,830	49.5	21.4	78.6
1870.....	12,925	44.4	53.0	47.0	1940.....	52,789	52.2	17.1	82.9
1880.....	17,392	47.3	49.4	50.6	1950.....	60,054	53.5	11.6	88.4

* For 1820 to 1930, the data relate to the population and gainful workers at ages 10 and over. For 1940 and 1950, the data relate to the population and labor force at ages 14 and over; the farm and nonfarm percentages relate only to the experienced labor force.

As the American population grows, so does its labor force. Women in the labor force are also growing in number. More than one-fourth of the labor force are women workers.

Occupational Distribution* of the Experienced Civilian Labor Force, by Sex; U. S., Annual Averages for 1950 and 1954

Source: U. S. Bureau of the Census.

Major occupation group	1950			1954		
	Both sexes	Male	Female	Both sexes	Male	Female
Experienced civilian labor force.....	100.0	100.0	100.0	100.0	100.0	100.0
Professional, technical, and kindred workers..	7.3	6.2	10.0	8.9	8.1	10.6
Self-employed workers.....	1.1	1.3	0.7	1.4	1.6	0.6
Other workers.....	6.2	4.9	9.3	7.5	6.5	10.0
Farmers and farm managers.....	7.0	9.4	1.3	6.0	8.4	0.6
Self-employed workers.....	6.9	9.3	1.3	5.9	8.2	0.6
Other workers.....	0.1	0.1	....	0.1	0.2	....
Managers, officials, and proprietors, except farm.....	10.4	12.5	5.4	9.8	12.0	4.9
Self-employed workers.....	6.4	7.6	3.4	6.0	6.7	2.8
Other workers.....	4.0	4.9	2.0	3.8	5.3	2.1
Clerical and kindred workers.....	12.6	7.1	25.8	13.1	6.6	27.9
Sales workers.....	6.3	5.5	8.3	6.4	5.7	7.9
Craftsmen, foremen, and kindred workers....	13.0	17.9	1.1	13.6	19.1	1.3
Operatives and kindred workers.....	20.8	21.2	19.9	20.7	21.4	19.2
Private household workers.....	3.2	0.3	10.1	2.9	0.1	9.2
Service workers, except private household...	8.0	6.2	12.2	8.2	6.1	12.9
Farm laborers and foremen.....	5.1	4.9	5.4	4.1	3.7	4.8
Laborers, except farm and mine.....	6.4	8.8	0.6	6.3	8.8	0.6

* Percent distribution. Annual averages are based on estimates for January, April, July and October.

Women in the Working Population of the U. S., 1870–1950

Source: U. S. Bureau of the Census.

Year	Working women*		
	Number (thousands)	Percent of female population ages 10 and over*	Percent of total working population ages 10 and over*
1870	1,917	13.3	14.8
1880	2,647	14.7	15.2
1890	4,006	17.4	17.2
1900	5,319	18.8	18.3
1910	7,445	21.5	19.9
1920	8,637	21.4	20.4
1930	10,752	22.0	22.0
1940	12,845	25.4	24.3
1950	16,501	28.9	27.5

* For 1870 to 1930, the data relate to the population and gainful workers at ages 10 and over; for 1940 and 1950, the data relate to the population and labor force at ages 14 and over.

Percent Unemployed in the Civilian Labor Force, 1929–54

Source: U. S. Bureau of the Census.

Year	Percent unemployed	Year	Percent unemployed
1929	3.2	1942	4.7
1930	8.7	1943	1.9
1931	15.9	1944	1.2
1932	23.6	1945	1.9
1933	24.9	1946	3.9
1934	21.7	1947	3.6
1935	20.1	1948	3.4
1936	16.9	1949	5.5
1937	14.3	1950	5.0
1938	19.0	1951	3.0
1939	17.2	1952	2.7
1940	14.6	1953	2.5
1941	9.9	1954	5.0

NOTE: These estimates are derived from sample surveys and are subject to sampling variations.

MARRIAGE AND DIVORCE

In 1954 there were about 1,476,000 marriages in the U. S., the smallest number in a decade. The all-time high of 2,291,000 marriages occurred in 1946, following the return of servicemen from World War II. The marriage rate—the number of marriages per 1,000 population—has continued downward from 16.4 in 1946 to 9.2 in 1954; this downward trend was interrupted by a moderate upswing following the outbreak of the Korean War in 1950. Two factors largely account for the low level of marriages in recent years: (1) the number of those eligible to marry has been depleted by the marriage boom during and immediately after World War II, and (2) the population at the ages where most marriages occur has been decreasing recently—a result of the low birth rates during the 1930s.

Although 1956 is a leap year, it is not expected to show an upswing in marriages. There is little likelihood of any spurt in marriages until after 1960, when an increasing number of "war babies" will be attaining marriageable age. Actually, the belief that the marriage rates are exceptionally high in leap years has no foundation in fact. Since the Civil War, only twice—in 1896 and in 1920—was the marriage rate higher in a leap year than in the years which immediately preceded and followed.

There has been a long-term trend in our country toward earlier marriage. Among males, the median age at first marriage (the age above and below which there are an equal number of first marriages) has fallen from 26.1 years in 1890 to 23.6 years in 1953, and among females from 22.0 years to 20.5 years. The tendency to marry earlier is also reflected in the greater proportion of younger people who are married. Thus, in 1890 only one-fifth of the men at ages 20–24 had ever been married, whereas in 1954 the proportion was not far from one-half. For women, the proportion rose from almost one-half in 1890 to more than two-thirds in 1954. About nine-tenths of the men and women in the U. S. eventually marry.

The highest marriage rates in the U. S. are found in the West and the South. Largely because of its popular marriage centers—Reno and Las Vegas—Nevada records a far higher marriage rate than any other state in the Union. In 1954, there were about 227 marriages for every 1,000 people in that state; next in order were Mississippi with a rate of 28 per 1,000 and New Mexico with a rate of 25.

Divorces in the U. S. reached an all-time high just after World War II and have decreased rather sharply since then. In 1946, there were approximately 610,000

divorces (including annulments) granted in our country or more than twice the number in any year prior to the war. This peak was largely a result of hasty wartime marriage, the prolonged separation of husbands and wives, and other factors tending to disrupt the stability of family life. In the past few years, the number of divorces granted has been somewhat below 400,000; this is still well above the prewar level.

Median Age at First Marriage in the U. S., 1890–1953

Source: U. S. Bureau of the Census.

Year	Males	Females	Year	Males	Females
1890.....	26.1	22.0	1930....	24.3	21.3
1900.....	25.9	21.9	1940....	24.3	21.5
1910.....	25.1	21.6	1952....	23.0	19.8
1920.....	24.6	21.2	1953*...	23.6	20.5

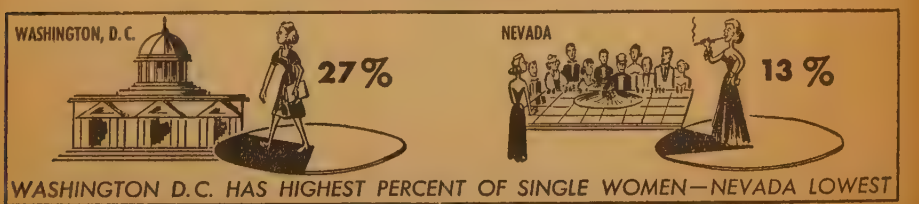
* The medians for 1953 were computed from answers to direct questions about age at marriage.

Marriages and Divorces in the United States, 1890–1954

Source: U. S. Public Health Service.

Year	Marriage		Divorce[2]		Year	Marriage		Divorce[2]	
	Number	Rate[1]	Number	Rate[1]		Number	Rate[1]	Number	Rate[1]
1890.....	570,000	9.0	33,461	.5	1927.....	1,201,053	10.1	196,292	1.6
1895.....	620,000	8.9	40,387	.6	1928.....	1,182,497	9.8	200,176	1.7
1900.....	709,000	9.3	55,751	.7	1929.....	1,232,559	10.1	205,876	1.7
1901.....	742,000	9.6	60,984	.8	1930.....	1,126,856	9.2	195,961	1.6
1902.....	776,000	9.8	61,480	.8	1931.....	1,060,914	8.6	188,003	1.5
1903.....	818,000	10.1	64,925	.8	1932.....	981,903	7.9	164,241	1.3
1904.....	815,000	9.9	66,199	.8	1933.....	1,098,000	8.7	165,000	1.3
1905.....	842,000	10.0	67,976	.8	1934.....	1,302,000	10.3	204,000	1.6
1906.....	895,000	10.5	72,062	.8	1935.....	1,327,000	10.4	218,000	1.7
1907.....	936,936	10.8	76,571	.9	1936.....	1,369,000	10.7	236,000	1.8
1908.....	857,461	9.7	76,852	.9	1937.....	1,451,296	11.3	249,000	1.9
1909.....	897,354	9.9	79,671	.9	1938.....	1,330,780	10.3	244,000	1.9
1910.....	948,166	10.3	83,045	.9	1939.....	1,403,633	10.7	251,000	1.9
1911.....	955,287	10.2	89,219	1.0	1940.....	1,595,879	12.1	264,000	2.0
1912.....	1,004,602	10.5	94,318	1.0	1941.....	1,695,999	12.7	293,000	2.2
1913.....	1,021,398	10.5	91,307	.9	1942.....	1,772,132	13.2	321,000	2.4
1914.....	1,025,092	10.3	100,584	1.0	1943.....	1,577,050	11.7	359,000	2.6
1915.....	1,007,595	10.0	104,298	1.0	1944.....	1,452,394	10.9	400,000	2.9
1916.....	1,075,775	10.6	114,000	1.1	1945.....	1,612,992	12.2	485,000	3.5
1917.....	1,144,200	11.1	121,564	1.2	1946.....	2,291,045	16.4	610,000	4.3
1918.....	1,000,109	9.7	116,254	1.1	1947.....	1,991,878	13.9	483,000	3.4
1919.....	1,150,186	11.0	141,527	1.3	1948.....	1,811,155	12.4	408,000	2.8
1920.....	1,274,476	12.0	170,505	1.6	1949.....	1,579,798	10.6	397,000	2.7
1921.....	1,163,863	10.7	159,580	1.5	1950.....	1,667,231	11.1	385,144	2.6
1922.....	1,134,151	10.3	148,815	1.4	1951.....	1,594,694	10.4	381,000	2.5
1923.....	1,229,784	11.0	165,096	1.5	1952.....	1,539,318	9.9	392,000	2.5
1924.....	1,184,574	10.4	170,952	1.5	1953.....	1,546,000	9.8	390,000	2.5
1925.....	1,188,334	10.3	175,449	1.5	1954.....	1,476,000[3]	9.2[3]	.....	...
1926.....	1,202,574	10.2	184,678	1.6					

[1] Per 1,000 population. Divorce rates for 1917–19 and 1941–46 are based on population including armed forces overseas; for 1940 and 1947–52, on population excluding armed forces overseas. Marriage rates for 1917–19 and 1940–52 are based on population excluding armed forces overseas. [2] Includes annulments. [3] Provisional. NOTE: Figures for marriages for all years include partial or complete estimates for some states; figures for divorces are estimated, except for 1900, 1905, 1922–32 and 1950.



Source: U. S. Bureau of the Census. *Pictograph Corp.*

Marital Status of the Population, 1950

Source: U. S. Bureau of the Census.

State and Census division	Males				Females			
		% distribution*				% distribution*		
	Population 14 yrs. old & over	Single	Married	Widowed or divorced	Population 14 yrs. old & over	Single	Married	Widowed or divorced
Alabama	1,024,915	26.03	69.10	4.87	1,093,798	19.51	66.21	14.28
Arizona	263,546	25.84	67.38	6.78	259,511	18.36	68.05	13.59
Arkansas	659,656	24.09	69.76	6.15	675,397	16.84	68.74	14.45
California	4,034,180	24.37	68.25	7.38	4,073,341	15.88	67.00	17.12
Colorado	489,263	25.76	67.60	6.64	490,550	18.23	67.03	14.74
Connecticut	756,080	27.34	66.89	5.77	797,537	23.28	63.74	12.98
Delaware	117,542	25.45	68.52	6.03	122,763	20.46	65.96	13.58
D. C.	301,111	29.58	64.01	6.41	347,872	26.99	56.71	17.30
Florida	1,018,121	22.69	70.53	6.78	1,065,169	15.37	67.86	16.77
Georgia	1,168,086	26.29	68.86	4.85	1,247,615	18.84	66.03	15.13
Idaho	213,170	25.26	68.33	6.41	198,781	16.10	72.69	11.21
Illinois	3,309,125	25.56	67.73	6.71	3,418,775	19.74	65.57	14.69
Indiana	1,448,831	23.12	70.03	6.85	1,486,515	17.53	68.10	14.37
Iowa	968,920	25.55	68.17	6.28	985,169	19.54	66.95	13.51
Kansas	712,198	24.44	69.26	6.30	720,732	17.72	68.10	14.18
Kentucky	1,039,654	27.16	66.95	5.89	1,048,459	19.96	66.32	13.72
Louisiana	914,015	25.86	68.93	5.21	968,553	19.14	66.43	14.43
Maine	331,780	27.03	65.50	7.47	342,686	21.67	63.57	14.76
Maryland	863,852	26.31	68.01	5.68	884,036	20.09	66.40	13.51
Massachusetts	1,733,192	29.58	64.04	6.38	1,905,814	27.01	58.64	14.35
Michigan	2,368,024	25.13	68.41	6.46	2,349,955	18.74	68.55	12.71
Minnesota	1,101,812	29.56	64.79	5.65	1,099,128	22.73	64.85	12.42
Mississippi	723,522	26.45	68.55	5.00	757,568	18.71	67.27	14.02
Missouri	1,466,440	23.74	69.24	7.02	1,556,891	18.64	65.64	15.72
Montana	227,271	28.98	63.45	7.57	202,470	17.13	69.98	12.89
Nebraska	498,732	26.94	67.02	6.04	497,059	19.87	67.05	13.08
Nevada	64,807	25.18	65.45	9.37	55,791	12.94	72.64	14.42
New Hampshire	197,099	26.90	65.67	7.43	207,945	22.53	62.57	14.90
New Jersey	1,838,965	26.34	68.08	5.58	1,931,114	21.35	65.19	13.46
New Mexico	233,244	28.32	66.09	5.59	223,050	20.16	68.56	11.28
New York	5,616,963	27.59	66.79	5.62	6,033,574	23.15	62.89	13.96
North Carolina	1,390,072	29.44	66.62	3.94	1,435,312	22.54	65.39	12.07
North Dakota	230,502	34.70	60.51	4.79	207,649	23.10	66.68	10.22
Ohio	2,935,808	23.52	69.45	7.03	3,060,868	19.07	66.48	14.45
Oklahoma	808,460	23.87	69.51	6.62	822,794	16.13	68.34	15.53
Oregon	576,808	22.86	69.60	7.54	561,087	15.14	70.82	14.04
Pennsylvania	3,904,893	27.64	66.18	6.18	4,108,599	23.29	63.38	13.33
Rhode Island	300,768	30.12	63.87	6.01	319,531	25.40	60.99	13.61
South Carolina	688,217	29.53	66.67	3.80	733,249	22.57	64.13	13.30
South Dakota	245,727	31.27	63.33	5.40	227,366	20.86	67.86	11.27
Tennessee	1,149,299	25.45	69.04	5.51	1,209,638	19.31	66.11	14.58
Texas	2,781,613	24.78	69.34	5.88	2,801,565	16.79	68.60	14.61
Utah	235,325	25.81	69.31	4.88	234,486	19.12	69.31	11.57
Vermont	136,311	28.62	64.42	6.96	141,356	22.89	62.23	14.88
Virginia	1,210,799	29.79	65.22	4.99	1,193,627	21.18	65.46	13.36
Washington	919,661	25.93	66.57	7.50	862,214	15.44	70.03	14.53
West Virginia	700,823	27.29	67.08	5.63	704,919	20.98	66.56	12.46
Wisconsin	1,278,770	27.97	65.84	6.19	1,279,013	21.77	65.72	12.51
Wyoming	113,645	28.98	64.35	6.67	96,526	15.52	73.30	11.18
New England	3,455,230	28.70	64.89	6.41	3,709,869	25.17	60.75	14.08
Middle Atlantic	11,360,821	27.40	66.79	5.81	12,073,287	22.91	63.43	13.66
East North Central	11,340,558	24.90	68.40	6.70	11,595,126	19.30	66.76	13.94
West North Central	5,224,331	26.54	67.23	6.23	5,293,994	19.92	66.32	13.76
South Atlantic	7,458,623	27.46	67.42	5.12	7,734,562	20.45	65.57	13.98
East South Central	3,937,390	26.23	68.42	5.35	4,109,463	19.42	66.40	14.18
West South Central	5,163,744	24.73	69.36	5.91	5,268,309	17.12	68.18	14.70
Mountain	1,840,271	26.62	66.89	6.49	1,761,165	17.93	69.17	12.90
Pacific	5,530,649	24.47	68.11	7.42	5,496,642	15.73	67.87	16.40
TOTAL U. S.	55,311,617	26.25	67.62	6.13	57,042,417	20.08	65.75	14.17

* Total for ages 14 and over = 100%.

Marriage Information, by State

Sources: Information Please Almanac questionnaires to states; and U. S. Public Health Service.

State	Legal minimum marriage age: With parental consent M	With parental consent F	Without parental consent M	Without parental consent F	Blood test required	Waiting period: Before license	Waiting period: After license	Marriages[1]: Marriages, 1953[2]	Marriages[1]: Marriage licenses, 1954[2]
Alabama	17	14	21	18	yes	none	none	19,925	19,551
Arizona	18	16	21	18	no	none	none	21,958	20,529
Arkansas	18	16	21	18	yes	3 da.	none	28,024	16,114
California	18[4]	16[4]	21	18	yes	none	none	80,014	78,057
Colorado	16	16	21	18	yes	none	none	12,215	12,323
Connecticut	16	16	21	21	yes	5 da.	none	18,080	17,758
Delaware	18	16	21	18	yes	none	24 hr.[5]	2,636	2,251
D. C.	18	16	21	18	no	3 da.	none	8,863	8,235
Florida	18	16	21	21	yes	3 da.	none	27,648	28,752
Georgia	17	14	21	21	yes	5 da.	none	52,146	51,504
Idaho	15	15[6]	18	18	yes	none	none	8,487	8,905
Illinois	18	16	21	18	yes	none	none	82,923	82,437
Indiana	18	16	21	18	yes	none	none	64,642	62,654
Iowa	16	14	21	18	yes	none	none	23,050	23,144
Kansas	18	16	21	18	yes	3 da.	none	17,640	17,342
Kentucky	16	14	21	21	yes	3 da.	none	24,202	22,680
Louisiana	18	16	21	21	(7)	none	72 hr.	24,394	23,219
Maine	16	16	21	18	yes	5 da.	none	8,864	8,072
Maryland	18	16	21	18	no	48 hr.	none	46,148	41,897
Massachusetts	18	16	21	18	yes	5 da.	none	49,810	47,781
Michigan	18	16[13]	18	18	yes	5 da.	none	52,016	50,445
Minnesota	18	16	21	18	no	5 da.	none	24,909	24,305
Mississippi	14	12	21[3]	18[3]	no	none	none	62,019	60,978
Missouri	15[6]	15[6]	21	18	yes	3 da.	none	36,082	36,687
Montana	18	16	21	21	yes	none	none	6,603	6,583
Nebraska	18	16	21	21	yes	none	none	11,655	11,294
Nevada	18	16	21	18	no	none	none	51,845	49,431
New Hampshire	14	13	21	18	yes	5 da.	none	7,029	6,963
New Jersey	18[15]	16[15]	21	18	yes	72 hr.	none	42,131	41,034
New Mexico	18	16	21	18	no	none	none	22,488	19,500
New York	16	14[10]	21	18	yes	none	(11)	128,889	126,225
North Carolina	16	16	18	18	yes	none[8]	none	27,017	25,679
North Dakota	18	15	21	18	yes	none	none	4,396	4,301
Ohio	18	16	21	21	yes	5 da.	none	64,375	56,750
Oklahoma	18	15	21	18	yes	none	none	23,474	23,818
Oregon	18	15	21	18	yes	3 da.	none	10,585	9,611
Pennsylvania	16[12]	16[12]	21	21	yes	3 da.	none	78,713	74,117
Rhode Island	18	16	21	21	yes	5 da.	none	6,336	6,005
South Carolina	18	14	18	18	no	24 hr.	none	45,040	44,837
South Dakota	18	15	21	18	yes	none	none	6,072	6,112
Tennessee	16	16	21	21	yes	3 da.[9]	none	22,594	22,854
Texas	16	14	21	18	yes	none	none	89,679	88,569
Utah	16	14	21	18	yes	none	none	6,904	6,252
Vermont	18	16	21	18	yes	none	5 da.	3,332	2,859
Virginia	18	16	21	21	yes	none	none	37,429	36,480
Washington	15	15	21	18	no	3 da.	none	29,527	28,622
West Virginia	18	16	21	21	yes	3 da.	none	15,260	14,601
Wisconsin	18	15	21	18	yes	5 da.	none	25,575	24,801
Wyoming	18	16	21	21	yes	none	none	3,150	3,186

[1] Data represent marriages reported for 20 states in 1953 and 22 states in 1954. For remaining states, data represent marriage licenses. [2] By place of occurrence. [3] State recognizes common-law marriages. [4] Males under 18 and females under 16 may be married with consent of parents, provided Superior Court gives its permission. [5] 96 hr. if nonresidents. [6] If under 15, order must be obtained from Probate Court. [7] For males only. [8] Except in Pamlico County, 48 hr. [9] Except by court order or known by judge to be over 21. [10] Females 14–16 years old must have consent of Judge of Children's Court. [11] Marriage may not be solemnized within 3 days from date on which specimen was taken for serological test, and not until 24 hr. after issuance of marriage license. [12] Orphans' Court may approve issuance of license to one younger than 16 years. [13] Consent of 1 parent or guardian necessary for female only. [14] County judge may give written permission to marry to male under 18 in order to prevent child fathered by applicant from being born out of wedlock. [15] If male is under 18 or female under 16, consent required must be approved in writing by any judge of the county court or of the county court of juvenile and domestic relations.

Divorce Information, by State

Sources: Information Please Almanac questionnaires to states; and U. S. Public Health Service.

State	Residence for divorce	Period before parties may remarry		Divorces[1]	
		Plaintiff	Defendant	1952[2]	1953[2]
Alabama	1 yr.	60 da.[3]	60 da.[3]	9,076	9,281
Arizona	1 yr.	1 yr.	1 yr.	4,905	5,125
Arkansas	90 da.	none	none	.....	8,234
California	1 yr.[21]	1 yr.	1 yr.	41,398	40,196
Colorado	1 yr.	6 mo.	6 mo.	4,500[7]	4,300[7]
Connecticut	3 yr.	none	none	2,853	2,825
Delaware	2 yr.	none	none	547	603
D. C.	1 yr.[5]	6 mo.	6 mo.	1,186	1,568
Florida	90 da.	none	none	20,468	20,139
Georgia	1 yr.	30 da.	30 da.	9,000[7]	6,843[5]
Idaho	6 wk.	none	none	2,586	2,584
Illinois	1 yr.	none	none	24,188	21,801
Indiana	1 yr.	none	none	12,789	12,388[7]
Iowa	1 yr.	1 yr.[18]	1 yr.[18]	5,596	5,253
Kansas	1 yr.	6 mo.	6 mo.	5,312	5,394
Kentucky	1 yr.	none	none	.....	.....
Louisiana	1 yr.	none[8]	none[8]	.....	.....
Maine	6 mo.	none	none	2,207	2,177
Maryland	1 yr.	none	none	4,934	5,207
Massachusetts	5 yr.	6 mo.	2 yr.	6,003	6,473
Michigan	1 yr.	none	(9)	14,925[5]	16,537[5]
Minnesota	1 yr.	6 mo.	6 mo.	4,004	4,118
Mississippi	1 yr.	(10)	(10)	5,419	5,204
Missouri	1 yr.	none	none	12,943	12,342
Montana	1 yr.	none	none	1,989	1,986
Nebraska	1 yr.	6 mo.	6 mo.	2,403	2,367
Nevada	6 wk.	none	none	9,130	10,127
New Hampshire	1 yr.	none	none	1,119	1,112
New Jersey	2 yr.	none[22]	none[22]	5,036	4,791
New Mexico	1 yr.[20]	none	none	2,940	.....
New York	(11)	none	3 yr.[12]	.....	.....
North Carolina	2 yr.	none	none	5,857	.....
North Dakota	1 yr.	(4)	(4)	590	580
Ohio	1 yr.	none	none	21,854	23,278
Oklahoma	1 yr.	6 mo.	6 mo.	13,174[7]	13,038[7]
Oregon	1 yr.	6 mo.	6 mo.	6,311	6,372
Pennsylvania	1 yr.	none	none	11,946	12,187
Rhode Island	2 yr.	none	none	1,026	797
South Carolina	1 yr.	none	none	.....	2,334[5]
South Dakota	1 yr.	none	none[14]	936	928
Tennessee	2 yr.	none	none[13]	7,754	7,699
Texas	1 yr.	1 yr.[19]	1 yr.[19]	37,300[5]	39,000[7]
Utah	3 mo.	6 mo.	6 mo.	2,263	2,422
Vermont	1 yr.	none	2 yr.[15]	610	479
Virginia	1 yr.	4 mo.	4 mo.	7,834	8,009
Washington	1 yr.	none	none	9,310	8,819[7]
West Virginia	1 yr.[16]	60 da.[17]	60 da.[17]	.....	.....
Wisconsin	2 yr.	1 yr.	1 yr.	.....	5,011
Wyoming	60 da.	none	none	1,250[5]	1,204[5]

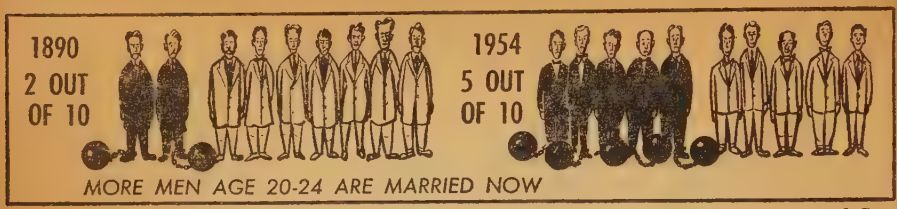
[1] Include reported annulments. [2] Leaders (....) indicate data unavailable. [3] Divorced persons may remarry each other at any time. [4] At discretion of court. [5] Incomplete. [6] 2 yr. if cause for divorce occurred outside D. C. [7] Estimated. [8] For husband; 10 mo. for wife. In case of adultery, guilty party cannot marry accomplice. [9] At discretion of court; or in case of children, 6-mo. waiting period mandatory. [10] Until court is adjourned that grants the divorce. [11] Action for divorce may be maintained where: (1) both parties were residents of state when offense was committed; (2) parties were married within state; (3) plaintiff was resident of state when offense was committed and is resident when action is commenced; (4) offense was committed within state and injured party is resident of state when action is commenced. [12] By modification of decree by court. [13] Party guilty of adultery may never marry the corespondent. [14] In case of adultery, guilty party may not marry, except to innocent party, until death of innocent party. [15] Period may be shortened by court. [16] 2 years if residence is acquired after cause of divorce action arose. No residence required in case of adultery if personal service can be had within state. [17] Attorney can lengthen waiting period if desired. [18] Unless otherwise set out by judge. [19] For cruelty only, but technically not usually observed. [20] Servicemen acquire residence by being continuously stationed at military base in state for 1 year. [21] Must have resided in county for 3 mo. [22] 3-mo. period between first and final judgment.

Grounds for Divorce

Source: Information Please Almanac questionnaires to the states.

State	Adultery	Cruelty	Desertion	Alcoholism	Impotence	Felony conviction	Neglect to provide	Insanity	Pregnancy at marriage[1]	Bigamy	Separation	Indignities	Drug addiction	Violence	Fraudulent contract	Others
Alabama	yes	yes	yes[2]	yes	...	yes[50]	yes[3]	yes[4]	yes	...	...	...	yes	yes	...	(5)
Arizona	yes	yes	yes	yes	yes	yes[6]	yes	...	yes	yes	yes[4]	yes	yes	yes	yes	(5,7-13)
Arkansas	yes	yes	yes[2]	yes	yes	yes	yes	...	...	yes	yes[14]	yes	yes	yes	yes	(12,15,16)
California	yes	yes	yes	yes	yes	yes	yes	yes[14]	...	yes	...	yes	...	yes	yes	.....
Colorado	yes	yes	yes[2]	yes	yes	yes	yes	yes[4]	...	yes	yes[2]	...	yes	yes	...	(7)
Connecticut	yes	yes	yes[14]	yes	...	yes[18]	...	yes[4]	...	...	...	...	...	...	yes	(10,17,19)
Delaware	yes	yes	yes[3]	yes[3]	...	yes[20]	yes	yes[4]	...	yes	...	...	...	...	...	(21-23)
D. C.	yes	...	yes[3]	...	...	yes	...	...	...	...	yes[4]	...	...	...	...	.....
Florida	yes	yes	yes[2]	...	yes	...	...	...	...	yes	...	...	...	...	...	(12,17,24,47)
Georgia	yes	yes	yes[2]	yes	yes	yes[20]	...	yes	yes	...	...	...	...	...	yes	(12,16)
Idaho	yes	yes	yes	...	...	yes	yes	yes[14]	...	yes	...	...	...	...	...	(17,51)
Illinois	yes	yes	yes[2]	yes[3]	yes	yes	...	...	...	yes	...	...	...	...	...	(10,26,27)
Indiana	yes	yes	yes[3]	yes	yes	...	yes[3]	yes[4]	...	...	...	...	...	...	...	(10)
Iowa	yes	yes	yes[3]	yes	...	yes	...	...	...	...	...	...	...	...	...	.....
Kansas	yes	yes	yes[2]	yes	yes	yes	...	yes[4]	yes	yes	...	...	...	...	yes	(12,16)
Kentucky	yes	yes	yes	yes	yes	yes	...	yes[4]	yes	...	yes[4]	...	...	yes	yes	(11,28,29)
Louisiana	yes	yes	yes	yes	...	yes	...	...	...	...	yes[3]	...	...	...	...	(26,30)
Maine	yes	yes	yes	yes	yes	yes[18]	yes	...	...	yes	...	yes	yes	...	...	(15)
Maryland	yes	...	yes[31]	...	yes	yes[32]	...	yes[14]	...	...	yes[14]	...	...	...	...	(33)
Massachusetts	yes	yes	yes[16]	yes	...	yes[34]	yes	...	...	...	...	...	yes	...	...	(24)
Michigan	yes	yes	yes[3]	yes	yes	yes[35]	yes	yes	...	...	...	...	...	...	...	.....
Minnesota	yes	yes	yes[2]	yes[2]	yes	yes	...	yes[4]	...	...	yes[3]	...	...	...	...	.....
Mississippi	yes	yes	yes	yes	yes	yes	...	yes[15]	yes	yes	yes[2]	...	yes	yes	...	(7,12,16)
Missouri	yes	yes	yes	yes	yes	yes	...	...	yes	yes	...	yes	...	...	...	(7-10)
Montana	yes	yes	yes	...	...	yes	yes	yes	...	...	...	...	...	...	...	(17)
Nebraska	yes	yes	yes	yes	yes	yes[35]	yes	yes[4]	...	...	...	...	...	...	...	.....
Nevada	yes	yes	yes[2]	yes	yes	yes	yes	yes[3]	...	...	...	...	...	...	...	(10,36)
New Hampshire	yes	yes	yes[14]	yes[14]	yes	yes[6]	yes[14]	...	...	...	...	...	...	yes	...	(15,28)
New Jersey	yes	yes	yes[3]	...	...	...	...	...	...	...	...	...	...	...	...	.....
New Mexico	yes	yes	yes	yes	yes	yes	yes	yes	yes	...	...	...	...	...	...	(49)
New York	yes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
North Carolina	yes	...	...	...	yes	...	...	yes[37]	yes	...	yes[3]	...	...	...	...	(5)
North Dakota	yes	yes	yes[2]	yes[2]	...	yes	yes[2]	yes[4]	...	...	...	...	yes[2]	...	...	.....
Ohio	yes	yes	...	yes[14]	yes	yes	...	...	...	yes	...	...	...	...	yes	(15,24,39)
Oklahoma	yes	yes	yes[2]	yes	yes	yes	...	yes[4]	yes	...	...	...	...	...	yes	(24,39,49)
Oregon	yes	yes	yes[2]	yes[38]	yes	yes	...	yes[14]	...	...	...	yes	...	...	...	.....
Pennsylvania	yes	yes	yes[3]	...	yes[45]	yes[20]	...	...	...	yes	...	yes	...	...	yes	(13)
Rhode Island	yes	yes	yes[4]	yes	yes	...	yes	...	...	...	...	...	yes	...	...	(40)
South Carolina	yes	yes	yes[2]	yes	...	...	...	...	...	...	...	...	...	...	...	.....
South Dakota	yes	yes[2]	yes[2]	...	...	yes	yes[2]	yes[2]	...	...	...	...	...	...	...	(7)
Tennessee	yes	yes	yes[3]	yes	yes	yes	yes	...	yes	yes	...	...	...	...	...	(10,26,41,46)
Texas	yes	yes	yes[14]	...	...	yes[6]	...	yes[4]	...	...	yes[37]	...	...	...	...	.....
Utah	yes	yes	yes	yes	yes	yes	yes	yes	...	...	yes[14]	...	...	...	...	.....
Vermont	yes	yes	yes[14]	...	...	yes[35]	yes	yes[4]	...	...	yes[14]	...	...	...	...	(19)
Virginia	yes	...	yes[2]	...	yes	yes	...	...	yes	...	...	...	...	...	...	(5,13,43,44)
Washington	yes	yes	yes[2]	yes	yes	yes	yes	yes[3]	...	...	yes[4]	yes	...	...	yes	.....
West Virginia	yes	yes	yes[3]	yes	...	yes	...	...	...	...	...	...	yes	...	...	.....
Wisconsin	yes	yes	yes[2]	yes	yes	yes[35]	...	...	...	...	yes[4]	...	...	...	...	(44)
Wyoming	yes	yes	yes[2]	yes	yes	yes	yes[2]	yes[3]	yes	...	yes[2]	yes	...	...	...	(8,9,48)

[1] If unknown to husband. [2] 1 year. [3] 2 years. [4] 5 years. [5] Crime against nature. [6] With imprisonment of 1 year. [7] Absence of 1 year. [8] Felony before marriage. [9] Husband a vagrant. [10] Infamous crime. [11] Loathsome disease. [12] Relationship within prohibited degree. [13] Wife a prostitute. [14] 3 years. [15] Absence of 3 years. [16] Insanity at time of marriage. [17] Habitual intemperance. [18] With imprisonment for life. [19] Absence of 7 years. [20] With imprisonment of 2 years. [21] Wife under 16 at time of marriage. [22] Husband under 18 at time of marriage. [23] Feeblemindedness or epilepsy for 5 years. [24] Defendant obtained divorce from plaintiff in any other state or country. [25] Absence. [26] Attempt by one party on life of other. [27] Infected other party with communicable venereal disease. [28] Joining a religious cult disbelieving in marriage. [29] Unchaste behavior of wife after marriage. [30] Public defamation. [31] 18 months. [32] With imprisonment of 3 years, 18 months of which have been served. [33] Any cause which, by laws of state, renders marriage null and void at its inception. [34] With imprisonment of 5 years. [35] With imprisonment of 3 years. [36] Noncohabitation for 3 years. [37] 10 years. [38] 1 year, if contracted after marriage. [39] Gross neglect of duty. [40] Any other gross misbehaviour or wickedness. [41] Absence of 2 years. [42] Infamous crime before marriage. [43] Fugitive from justice and absent for 2 years. [44] Absence of 5 years. [45] If at time of marriage and incurable. [46] Indignities. [47] Ungovernable temper. [48] Noncohabitation for 2 years. [49] Incompatibility. [50] Imprisonment for 2 years, sentence being for 7 years or more. [51] Noncohabitation for 5 years.



Source: U. S. Bureau of the Census. *Pictograph Corp.*

Percent of Population Ever Married: U. S., 1890–1954

Source: U. S. Bureau of the Census.

Age group, years	1890	1900	1910	1920	1930	1940	1950	1954
	Males							
14–19	0.4	0.9	1.0	1.8	1.5	1.5	2.9	2.5
20–24	19.1	22.1	24.5	29.0	28.8	27.8	41.0	45.9
25–29	53.9	54.0	57.0	60.3	63.1	64.0	76.2	76.7
30–34	73.3	72.2	73.7	75.7	78.7	79.3	86.8	88.8
35–44	84.5	82.9	83.1	83.7	85.6	86.0	90.4	90.9
45–54	90.7	89.6	88.7	87.8	88.5	88.9	91.5	92.0
	Females							
14–19	8.0	9.4	9.7	10.8	10.9	10.0	14.4	13.1
20–24	48.1	48.3	51.4	54.3	53.7	52.8	67.7	69.3
25–29	74.6	72.4	74.9	76.9	78.2	77.2	86.7	89.1
30–34	84.8	83.3	83.7	85.0	86.7	85.3	90.7	91.3
35–44	90.1	88.8	88.5	88.6	89.9	89.6	91.7	93.2
45–54	92.8	92.1	91.3	90.3	90.8	91.3	92.2	92.7

BIRTHS

The "baby boom" which began at the end of World War II does not show any sign of abating. In 1954, for the first time in the history of the U. S., the number of births passed the 4,000,000 mark; this compares with less than 2,400,000 births annually in the middle 1930s. The recent upsurge in births results from a large increase in the number of married women and from a rise in the birth rate among them. In the decade up to 1955, no less than 36¾ million babies have been added to the nation's population. Povisional figures indicate that 1955 will bring the total up by about 4,000,000. In the postwar years, the annual birth rate averaged about 25 per 1,000 population, or near the same level it was 30 years ago.

With the rise in the birth rate there seems to be a shift away from small families, which were common in the 1930s, toward moderate-size families. The birth rates for second, third, and fourth children to mothers have risen quite rapidly since the end of World War II; even fifth births have shown an upward tendency. Very large families, however, are a thing of the past—the birth rate for the eighth or later children is lower than it was a decade ago. The trend of the birth rate by age of mother is closely related to that for order of birth. Younger women experienced the most rapid rise in the birth rate, while for women past 40 years of age the birth rate has actually declined.

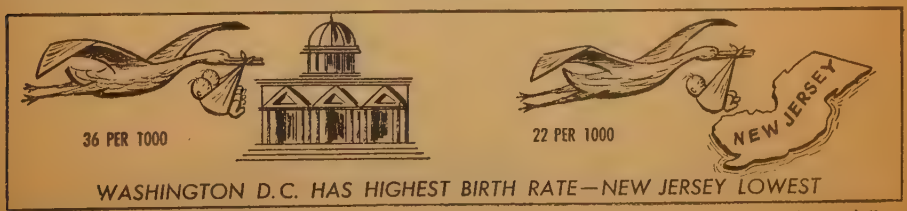
Only infrequently does a woman give birth to more than one baby at a confinement. During the period 1933–1950, twins occurred in one out of every 92 confinements, triplets occurred once in about 9,600 confinements and quadruplets once in about every 657,000. The chances of having a multiple birth varies with the age of the mother. For teenage mothers, the chances that a confinement will result in twins or triplets are only 6 in 1,000; for those at ages 35–39, the chances are 3 times as high. The likelihood of a multiple birth is somewhat greater for nonwhite than for white women. Twins may be identical, i.e., develop from the same egg, or they may be fraternal; developing from two separate eggs. Identical twins are invariably of the same sex, while fraternal twins may be of the same or opposite sex.

Live Births and Birth Rates, 1953-54

Source: U. S. Public Health Service.

State	Number			Rate		
	1953	1954	Per cent change	1953	1954	Per cent change
Alabama	82,751	82,463	−0.3	26.6	26.4	−0.8
Arizona	26,223	27,418	+4.6	28.2	27.6	−2.1
Arkansas	44,086	43,285	−1.8	23.1	22.7	−1.7
California	296,707	300,958	+1.4	24.3	24.0	−1.2
Colorado	38,647	39,834	+3.1	27.4	27.4	0
Connecticut	47,186	49,361	+4.6	21.8	22.2	+1.8
Delaware	9,223	9,961	+8.0	25.8	27.1	+5.0
D. C.	31,637	31,263	−1.2	37.6	36.3	−3.5
Florida	80,015	84,822	+6.0	23.9	24.1	+0.8
Georgia	99,785	103,744	+4.0	27.8	28.3	+1.8
Idaho	16,511	16,753	+1.5	27.4	27.2	−0.7
Illinois	202,689	213,055	+5.1	22.5	23.2	+3.1
Indiana	104,583	108,292	+3.5	25.3	25.7	+1.6
Iowa	63,455	63,748	+0.5	24.4	24.2	−0.8
Kansas	49,640	51,515	+3.8	24.7	25.6	+3.6
Kentucky	73,528	76,161	+3.6	24.8	25.4	+2.4
Louisiana	83,195	84,942	+2.1	28.8	29.0	+0.7
Maine	21,317	21,844	+2.5	23.3	23.5	+0.9
Maryland	59,545	62,427	+4.8	23.4	24.0	+2.6
Massachusetts	.....	.....	....	...	...	....
Michigan	181,998	190,669	+4.8	26.6	27.1	+1.9
Minnesota	77,996	79,919	+2.5	25.5	25.8	+1.2
Mississippi	66,367	68,239	+2.8	30.4	31.0	+2.0
Missouri	97,645	96,701	−1.0	23.8	23.3	−2.1
Montana	16,901	17,060	+0.9	27.5	27.2	−1.1
Nebraska	32,252	33,554	+4.0	23.9	24.6	+2.9
Nevada	5,040	5,738	+13.8	24.5	26.3	+7.3
New Hampshire	11,736	12,106	+3.2	22.3	22.8	+2.2
New Jersey	107,999	113,427	+5.0	21.0	21.6	+2.9
New Mexico	25,011	25,286	+1.1	33.0	32.4	−1.8
New York	327,236	338,315	+3.4	21.5	21.9	+1.9
North Carolina	114,729	115,776	+0.9	27.4	27.2	−0.7
North Dakota	17,005	17,130	+0.7	27.4	26.9	−1.8
Ohio	210,918	221,105	+4.8	25.2	25.8	+2.4
Oklahoma	51,685	52,125	+0.9	23.0	23.0	0
Oregon	39,601	38,114	−3.8	24.7	23.3	−5.7
Pennsylvania	239,375	243,971	+1.9	22.5	22.6	+0.4
Rhode Island	18,871	19,300	+2.3	23.1	23.4	+1.3
South Carolina	61,667	65,426	+6.1	28.1	29.2	+3.9
South Dakota	18,073	17,852[1]	−1.2	27.5	26.8	−2.5
Tennessee	84,573	86,861	+2.7	25.4	25.8	+1.6
Texas	234,778	241,996	+3.1	28.3	28.6	+1.1
Utah	24,138	24,906	+3.2	32.9	32.9	0
Vermont	9,078	9,047	−0.3	24.1	23.5	−2.5
Virginia	87,689	90,973	+3.7	24.7	25.4	+2.8
Washington	62,840	66,805	+6.3	25.4	26.3	+3.5
West Virginia	47,426	47,445	+0.0	24.5	24.4	−0.4
Wisconsin	88,389	90,975	+2.9	25.1	25.4	+1.2
Wyoming	8,709	8,780	+0.8	28.5	28.1	−1.4

[1] Revised figure supplied by State office. NOTE: Rates are per 1,000 estimated midyear population in each specified area; births are by place of occurrence. Data are provisional.



Source: U. S. Public Health Service. *Pictograph Corp.*

Live Births in the United States, 1909–1954

Source: U. S. Public Health Service.

Year	Births[1]	Rate[2]	Year	Births[1]	Rate[2]	Year	Births[1]	Rate[2]
1909	2,718,000	30.0	1925	2,909,000	25.1	1941	2,703,000	20.3
1910	2,777,000	30.1	1926	2,839,000	24.2	1942	2,989,000	22.2
1911	2,809,000	29.9	1927	2,802,000	23.5	1943	3,104,000	22.7
1912	2,840,000	29.8	1928	2,674,000	22.2	1944	2,939,000	21.2
1913	2,869,000	29.5	1929	2,582,000	21.2	1945	2,858,000	20.4
1914	2,966,000	29.9	1930	2,618,000	21.3	1946	3,411,000	24.1
1915	2,965,000	29.5	1931	2,506,000	20.2	1947	3,817,000	26.6
1916	2,964,000	29.1	1932	2,440,000	19.5	1948	3,637,000	24.9
1917	2,944,000	28.5	1933	2,307,000	18.4	1949	3,649,000	24.5
1918	2,948,000	28.2	1934	2,396,000	19.0	1950	3,632,000	24.1
1919	2,740,000	26.1	1935	2,377,000	18.7	1951	3,823,000	24.9
1920	2,950,000	27.7	1936	2,355,000	18.4	1952	3,913,000	25.1
1921	3,055,000	28.1	1937	2,413,000	18.7	1953	3,971,000	25.1
1922	2,882,000	26.2	1938	2,496,000	19.2	1954	4,076,000	25.3
1923	2,910,000	26.0	1939	2,466,000	18.8			
1924	2,979,000	26.1	1940	2,559,000	19.4			

[1] Adjusted for underregistration and for births in states not in the birth registration area from 1915 to 1932; estimates for earlier years are based upon data for a few states. [2] Rates are per 1,000 population estimated as of July 1 for each year except 1940 and 1950, which are as of April, the census date; for 1941–46 based on population including armed forces overseas.

Live Births by Order of Birth, 1940-52

Source: U. S. Public Health Service.

Year & race	Total	Birth Order						
		1st	2nd	3rd	4th	5th	6th & 7th	8th & over
1940	2,558,647	940,116	639,236	349,941	205,443	131,099	154,138	138,674
1941	2,703,205	1,045,490	672,076	361,545	208,623	131,465	150,962	133,044
1942	2,988,911	1,224,901	748,871	387,852	216,715	132,850	148,838	128,884
1943	3,103,530	1,142,594	839,529	443,599	242,679	145,238	157,434	132,457
1944	2,938,891	1,000,770	788,293	456,537	251,604	148,554	160,712	132,421
1945	2,858,449	961,456	763,494	445,705	248,607	148,251	159,100	131,836
1946	3,410,738	1,290,703	934,676	486,813	262,213	151,030	158,035	127,268
1947	3,816,770	1,574,001	1,018,873	523,722	266,976	151,703	156,269	125,226
1948	3,636,627	1,343,056	1,047,097	545,131	271,888	152,191	155,567	121,697
1949	3,648,867	1,234,963	1,092,658	584,175	292,951	158,496	160,328	125,296
1950	3,631,512	1,140,398	1,096,716	630,102	314,067	165,808	162,039	122,382
1951[1]	3,822,961	1,195,333	1,116,358	685,721	351,234	180,341	170,285	123,689
1952[1]	3,913,115	1,169,490	1,121,825	732,939	386,813	199,921	178,022	124,105
White	3,357,901	1,041,011	1,008,713	640,260	316,802	152,142	123,080	75,893
Nonwhite	555,214	128,479	113,112	92,679	70,011	47,779	54,942	48,212
		Birth Rate						
1940	79.9	29.3	20.0	10.9	6.4	4.1	4.8	4.3
1941	83.4	32.2	20.7	11.2	6.4	4.1	4.7	4.1
1942	91.5	37.5	22.9	11.9	6.6	4.1	4.6	3.9
1943	94.3	34.7	25.5	13.5	7.4	4.4	4.8	4.0
1944	88.8	30.2	23.8	13.8	7.6	4.5	4.9	4.0
1945	85.9	28.9	22.9	13.4	7.5	4.5	4.8	4.0
1946	101.9	38.5	27.9	14.5	7.8	4.5	4.7	3.8
1947	113.3	46.7	30.3	15.6	7.9	4.5	4.6	3.7
1948	107.3	39.6	30.9	16.1	8.0	4.5	4.6	3.6
1949	107.1	36.2	32.1	17.1	8.6	4.7	4.7	3.7
1950	106.2	33.3	32.1	18.4	9.2	4.8	4.7	3.6
1951[1]	111.3	34.8	32.5	20.0	10.2	5.2	5.0	3.6
1952[1]	113.5	33.9	32.5	21.3	11.2	5.8	5.2	3.6
White	109.8	34.0	33.0	20.9	10.4	5.0	4.0	2.5
Nonwhite	143.1	33.1	29.1	23.9	18.0	12.3	14.2	12.4

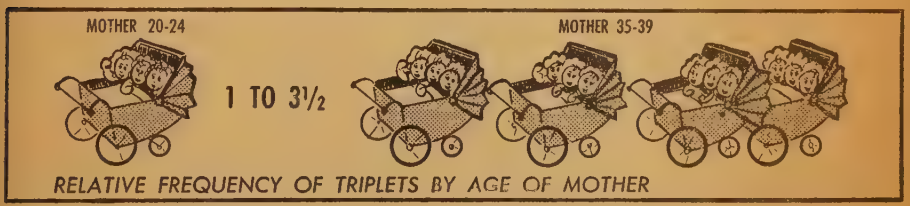
NOTE: Birth order refers to number of children born alive to mother. Figures are shown to the last digit as computed for convenience in summation. They are not assumed to be accurate to the last digit. Figures for births of order not stated are distributed, including births that occurred in Massachusetts, which did not require the reporting of birth order. Rates are live births per 1,000 female population aged 15–44 years in each specified group. Population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941–49, 1951 and 1952. Births are adjusted for under-registration. [1] Based on data from a 50% sample.

Crude Birth Rate for Selected Countries, 1938, 1948, 1953, 1954

Source: Statistical Office of the United Nations.

Country	Rate[1]				Country	Rate[1]			
	1938	1948	1953	1954		1938	1948	1953	1954
North America					Europe (cont.)				
Canada[2]	20.7	27.3	27.9	28.5	Hungary	19.9	19.1	*	*
Costa Rica	45.0	43.9	53.9	52.6	Ireland	19.4	22.1	21.1	*
El Salvador	43.7	44.6	47.7	47.4	Italy	23.8	22.0	17.5	17.6
Mexico	43.5	44.6	44.6	*	Luxemburg	14.9	14.7	16.0	*
Nicaragua	34.0	38.6	41.6	*	Netherlands	20.5	25.3	21.8	21.6
Panama[3]	45.5	35.6	37.0	34.9	Norway	15.4	20.5	18.7	*
Puerto Rico	38.6	40.2	34.8	35.1	Portugal	26.6	26.7	23.4	22.6
United States	17.6	24.2	24.7	24.9	Rumania	29.6	*	*	*
South America					Spain	20.1	23.3	20.6	20.0
Chile	32.1	33.7	36.1	*	Sweden	14.9	18.4	15.4	14.6
Peru[4]	*	26.1	30.6	*	Switzerland	15.2	19.2	17.0	17.0
Venezuela[4]	33.7	39.2	46.1	46.7	United Kingdom	15.5	18.1	15.9	15.6
Europe					Asia				
Austria	13.9	17.7	14.8	14.7	Ceylon	35.9	40.6	39.4	36.2
Belgium	16.0	17.6	16.6	16.8	India[6]	33.3	25.2	26.7	*
Bulgaria	22.8	*	*	*	Israel[7]	26.3	26.3	30.2	27.3
Czechoslovakia	16.7	23.4	*	*	Japan[8]	27.1	33.7	21.5	20.0
Denmark	18.1	20.3	17.9	17.4	Other				
Finland[6]	21.0	27.5	21.9	21.3	Australia[9]	17.5	23.1	22.9	*
France	15.0	21.1	18.8	18.7	New Zealand[10]	18.0	25.6	24.1	24.7
Germany, West	19.7	16.6	15.5	15.7	U. of So. Africa[11]	25.0	26.5	25.7	25.5

[1] Number of births per 1,000 population. [2] Excluding Yukon and Northwest Territories. [3] Excluding tribal Indians. [4] Excluding Indian jungle population. [5] Prior to 1951, data relate to Finnish nationals in Finland. [6] Registration area only. [7] Jewish population only. [8] Japanese nationals in Japan only. [9] Excluding full-blooded aborigines. [10] Excluding Maoris. [11] European population only. * Not available.



Source: U. S. Public Health Service. *Pictograph Corp.*

Multiple Births in the United States, 1933–50

Source: Statistical Bulletin of the Metropolitan Life Insurance Co.

Age and color of mother	Number of confinements*	Cases of multiple births per million confinements			
		Total	Twins	Triplets	Quadruplets
Total—All ages	48,586,704	10,939	10,833	104	1.5
Under 20	5,838,182	6,167	6,127	40	.2
20–24	15,361,317	8,585	8,519	65	1.0
25–29	13,400,847	11,343	11,240	102	1.3
30–34	8,299,863	14,347	14,188	157	2.0
35–39	4,338,446	17,114	16,890	220	4 4
40–44	1,243,764	13,942	13,771	169	1.6
45 and over	104,285	8,697	8,592	86	†
Color—All Ages					
White	42,538,339	10,621	10,524	96	1.1
Nonwhite	6,048,365	13,174	13,005	165	4.3

* Confinements from which at least one infant was born alive. † Cases too few to warrant computation. Source of basic data: Various reports by the National Office of Vital Statistics. Births reported with age of mother unknown were prorated; the age distributions for 1937, 1938, 1942, and 1943 were estimated by the Statistical Bureau, Metropolitan Life Insurance Company.

Live Births by Age of Mother, 1940-52

Source: U. S. Public Health Service.

Year and race	Total[1]	Age of mother							
		Under 15 yrs.	15–19 yrs.	20–24 yrs.	25–29 yrs.	30–34 yrs.	35–39 yrs.	40–44 yrs.	45 yrs. and over[2]
1940	2,558,647	3,865	332,667	799,537	693,268	431,468	222,015	68,269	7,558
1941	2,703,206	4,035	347,317	864,082	737,810	449,678	226,354	67,009	6,920
1942	2,988,911	3,138	370,129	985,763	826,177	490,386	239,024	66,775	6,519
1943	3,103,530	4,290	369,942	982,617	863,162	538,043	267,005	72,207	6,264
1944	2,938,891	4,051	322,098	910,710	803,382	536,622	280,490	75,510	6,028
1945	2,858,449	4,028	298,868	832,746	785,299	554,906	296,852	78,853	6,897
1946	3,410,738	3,863	339,833	1,090,802	967,946	610,736	311,361	79,648	6,549
1947	3,816,770	4,911	445,047	1,254,902	1,069,820	635,647	318,516	81,605	6,322
1948	3,636,627	5,337	449,568	1,193,146	1,006,183	597,036	301,096	78,387	5,874
1949	3,648,867	5,445	448,768	1,183,647	1,029,851	596,014	301,785	77,585	5,772
1950	3,631,512	5,413	432,911	1,155,167	1,041,360	610,816	302,780	77,743	5,322
1951[3]	3,822,961	5,460	456,523	1,220,900	1,090,147	649,542	313,843	81,137	5,409
1952[3]	3,913,115	5,358	449,163	1,232,057	1,120,702	690,940	326,299	83,018	5,578
White	3,357,901	1,809	341,188	1,057,833	986,746	610,591	284,102	71,140	4,492
Nonwhite	555,214	3,549	107,975	174,224	133,956	80,349	42,197	11,878	1,086
		Birth rate							
1940	79.9	0.7	54.1	135.6	122.8	83.4	46.3	15.6	1.9
1941	83.4	0.7	56.9	145.4	128.7	85.3	46.1	15.0	1.7
1942	91.5	0.7	61.1	165.1	142.7	91.8	47.9	14.7	1.6
1943	94.3	0.8	61.7	164.0	147.8	99.5	52.8	15.7	1.5
1944	88.8	0.8	54.3	151.8	136.5	98.1	54.6	16.1	1.4
1945	85.9	0.8	51.1	138.9	132.2	100.2	56.9	16.6	1.6
1946	101.9	0.7	59.3	181.8	161.2	108.9	58.7	16.5	1.5
1947	113.3	0.9	79.3	209.7	176.0	111.9	58.9	16.6	1.4
1948	107.3	1.0	81.8	200.3	163.4	103.7	54.5	15.7	1.3
1949	107.1	1.0	83.4	200.1	165.4	102.1	53.5	15.3	1.3
1950	106.2	1.0	81.6	196.6	166.1	103.7	52.9	15.1	1.2
1951	111.3	1.0	86.9	212.0	174.2	108.3	54.1	15.3	1.2
1952	113.5	0.9	85.4	218.1	180.4	113.1	56.1	15.3	1.2
White	109.8	0.4	74.3	212.9	179.2	111.7	54.7	14.6	1.0
Nonwhite	143.1	4.8	161.4	255.8	189.5	124.8	68.2	21.2	2.3

NOTE: Births are adjusted for underregistration. Figures are shown to the last digit as computed for convenience in summation. They are not assumed to be accurate to the last digit. Figures for age of mother not stated are distributed. Rates are live births per 1,000 female population in each specified group, enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1941–49, 1951 and 1952. Figures for age of mother not stated are distributed. [1] Rates computed by relating total births, regardless of age of mother, to female population aged 15–44 years. [2] Rates computed by relating births to mothers 45 years and over, to female population aged 45–49 years. [3] Based on data from a 50% sample.

Households, Families and Married Couples in the United States from 1890 to 1954

Source: U. S. Bureau of the Census.

Date	Households		Families		Married couples
	Number	Average population per household	Number	Average population per family	Number
June 1890	12,690,000	4.93	—	—	—
April 1930	29,905,000	4.01	—	—	25,174,000
April 1940	34,949,000	3.67	32,166,000	3.77	28,517,000
March 1950	43,554,000	3.37	39,303,000	3.54	36,091,000
April 1954	46,893,000	3.34	41,202,000	3.59	37,346,000

The average population per family has been steadily increasing since 1940. Not only are there more babies being born each year, but the size of the American family is beginning to increase.

Number of Families in the U. S., April 1940 and 1950

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various reports of the Bureau of the Census.

State	Number of families			Persons per family, 1950
	1940	1950	Per cent increase	
Alabama	646,000	729,765	13	3.98
Arizona	116,000	181,985	57	3.77
Arkansas	472,000	477,200	1	3.78
California	1,816,000	2,827,110	56	3.29
Colorado	278,000	338,205	22	3.51
Connecticut	412,000	512,280	24	3.59
Delaware	64,000	79,730	25	3.65
D. C.	165,000	198,180	20	3.26
Florida	473,000	721,460	53	3.44
Georgia	715,000	824,095	15	3.91
Idaho	128,000	148,710	16	3.67
Illinois	2,008,000	2,287,955	14	3.45
Indiana	892,000	1,039,105	16	3.50
Iowa	644,000	686,785	7	3.49
Kansas	460,000	507,665	10	3.42
Kentucky	671,000	717,535	7	3.86
Louisiana	554,000	648,410	17	3.87
Maine	201,000	223,175	11	3.75
Maryland	431,000	581,840	35	3.68
Massachusetts	1,025,000	1,171,805	14	3.62
Michigan	1,308,000	1,624,875	24	3.62
Minnesota	665,000	747,680	12	3.63
Mississippi	504,000	508,960	1	4.04
Missouri	986,000	1,057,260	7	3.41
Montana	133,000	145,775	10	3.62
Nebraska	327,000	344,720	5	3.51
Nevada	27,000	40,945	52	3.37
New Hampshire	120,000	134,255	12	3.59
New Jersey	1,030,000	1,263,570	23	3.54
New Mexico	119,000	159,885	34	3.97
New York	3,379,000	3,862,050	14	3.47
North Carolina	772,000	939,215	22	4.07
North Dakota	139,000	144,855	4	3.94
Ohio	1,761,000	2,077,595	18	3.53
Oklahoma	587,000	590,840	1	3.50
Oregon	291,000	411,690	41	3.34
Pennsylvania	2,345,000	2,639,925	13	3.68
Rhode Island	167,000	198,630	19	3.63
South Carolina	410,000	477,780	17	4.19
South Dakota	149,000	160,625	8	3.73
Tennessee	686,000	808,145	18	3.83
Texas	1,580,000	1,978,950	25	3.60
Utah	130,000	169,925	31	3.83
Vermont	84,000	90,100	7	3.77
Virginia	593,000	785,060	32	3.85
Washington	451,000	625,185	39	3.36
West Virginia	434,000	479,265	10	3.95
Wisconsin	758,000	867,990	15	3.64
Wyoming	60,000	72,235	20	3.57
United States	32,166,000	38,310,980	19	3.60

One Accidental Death Every 6 Minutes in 1954

Source: National Safety Council.

The nation's 1954 accident totals can be figured at the following approximate rates:

Class of accident		One every	Class of accident		One every
All accidents	Deaths	6 minutes	Workers off-job	Deaths	18 minutes
	Injuries	3 seconds		Injuries	14 seconds
Motor-vehicle	Deaths	15 minutes	Home	Deaths	19 minutes
	Injuries	25 seconds		Injuries	8 seconds
Work	Deaths	38 minutes	Public non-motor-vehicle	Deaths	34 minutes
	Injuries	17 seconds		Injuries	16 seconds

MORTALITY

Continuing its long-term downward trend, the death rate in the U. S. reached its lowest level in 1954—9.2 per 1,000 population. In the preceding 5 years, the annual death rate varied between 9.6 and 9.7 per 1,000. The highest mortality since the turn of the century was 18.1 per 1,000 recorded in 1918, the result of a virulent influenza epidemic. Over the years, the most rapid progress in reducing mortality has been made at the younger ages, but some decrease in death rate has occurred even at the older ages. Many factors have contributed to the general improvement in mortality, the most important being the advances in medical science and their widespread application, the improvement in environment sanitation, and better living and working conditions.

Most of the reduction in mortality is attributable to the control gained over the infectious diseases, which has been greatly aided in recent years by the use of penicillin and the antibiotics. The progress made against some of these diseases is indeed remarkable. Tuberculosis, for example, in the early 1900s outranked every other disease as a cause of death in the U. S., while at present it is not even among the 10 leading causes of death. In 1900–04, tuberculosis in our country recorded an average annual death rate of 185 per 100,000 population; by 1954 it was down to about 10 per 100,000. Even more spectacular has been conquest of the common childhood diseases—measles, scarlet fever, whooping cough and diphtheria. The mortality from this group of diseases dropped from 65 per 100,000 population in the early 1900s to .7 per 100,000 in 1954. The death rate from diphtheria alone at the beginning of the century was almost 50 times as high as the current rate from all 4 of these communicable diseases of childhood combined.

With the infectious diseases largely brought under control, the principal causes of death have been increasingly represented by the chronic diseases characteristic of later life. Whereas, in the early 1900s, the cardiovascular-renal diseases (diseases of the heart, arteries and kidneys) and cancer accounted for 25% of the total mortality in the U. S., in 1954 these diseases were virtually 70% of the total. In 1954, over one-half of the total deaths in the U. S. were attributed to the cardiovascular-renal diseases, and almost one-sixth to cancer.

Accidents take about 90,000 lives a year in the U. S., a larger toll than any disease except the cardiovascular conditions and cancer. In the range of ages from 1 up to 35 years, accidents are the leading cause of death. Motor-vehicle accidents alone in 1954 accounted for approximately 36,000 deaths in the population as a whole. Of this total, 7,900 were pedestrians hit by a motor vehicle, and 28,100 were drivers or passengers in vehicles which were in collisions or turned over. During 1954, injuries about the home killed 27,500 people, almost twice as many as were killed in occupational accidents.

Death Rates in the United States, 1900–1954

Source: U. S. Public Health Service.

Year	Rate[1]	Year	Rate[1]	Year	Number of deaths	Rate[1]
1900	17.2	1919	12.9	1938	1,381,391	10.6
1901	16.4	1920	13.0	1939	1,387,897	10.6
1902	15.5	1921	11.5	1940	1,417,269	10.8
1903	15.6	1922	11.7	1941	1,397,642	10.5
1904	16.4	1923	12.1	1942	1,385,187	10.3
1905	15.9	1924	11.6	1943	1,459,544	10.9
1906	15.7	1925	11.7	1944	1,411,338	10.6
1907	15.9	1926	12.1	1945	1,401,719	10.6
1908	14.7	1927	11.3	1946	1,395,617	10.0
1909	14.2	1928	12.0	1947	1,445,370	10.1
1910	14.7	1929	11.9	1948	1,444,337	9.9
1911	13.9	1930	11.3	1949	1,443,607	9.7
1912	13.6	1931	11.1	1950	1,452,454	9.6
1913	13.8	1932	10.9	1951	1,482,099	9.7
1914	13.3	1933	10.7	1952	1,496,838	9.6
1915	13.2	1934	11.1	1953[2]	1,518,600	9.6
1916	13.8	1935	10.9	1954[2]	1,481,000	9.2
1917	14.0	1936	11.6			
1918	18.1	1937	11.3			

[1] Rates are per 1,000 population as of July 1 for each year except 1940 and 1950 which are as of April 1, the census date. Rates are based on population excluding armed forces overseas. Fetal deaths are excluded. Data relate to the total United States only from 1933; for earlier years, the death rates relate to Death Registration States. [2] Provisional.

Deaths and Infant Deaths in Each State Reporting, 1953-54

Source: U. S. Public Health Service.

State	DEATHS (ALL AGES)						INFANT DEATHS (UNDER 1 YEAR)					
	Number			Rate			Number			Rate		
	1953	1954	Percent change	1953	1954	Percent change	1953	1954	Percent change	1953	1954	Percent change
Alabama	27,033	26,096	−3.5	8.7	8.4	−3.4	2,770	2,734	−1.3	33.5	33.2	−0.9
Arizona	8,104	7,627	−5.9	8.7	7.7	−11.5	1,260	1,073	−14.8	48.0	39.1	−18.5
Arkansas	15,933	15,094	−5.3	8.3	7.9	−4.8	1,199	1,120	−6.6	27.2	25.9	−4.8
California	109,410	107,655	−1.6	9.0	8.6	−4.4	7,215	7,073	−2.0	24.3	23.5	−3.3
Colorado	13,365	13,373	+0.1	9.5	9.2	−3.2	[1]1,222	1,256	+2.8	31.6	31.5	−0.3
Connecticut	20,454	20,274	−0.9	9.5	9.1	−4.2	1,017	1,090	+7.2	21.6	22.1	+2.3
Delaware	3,756	3,661	−2.5	10.5	10.0	−4.8	249	283	+13.7	27.0	28.4	+5.2
D. C.	9,211	8,735	−5.2	11.0	10.1	−8.2	771	789	+2.3	24.4	25.2	+3.3
Florida	32,154	33,130	+3.0	9.6	9.4	−2.1	2,476	2,682	+8.3	30.9	31.6	+2.3
Georgia	30,908	31,270	+1.2	8.6	8.5	−1.2	2,996	3,269	+9.1	30.0	31.5	+5.0
Idaho	4,904	4,773	−2.7	8.1	7.8	−3.7	406	374	−7.9	24.6	22.3	−9.3
Illinois	95,216	91,044	−4.4	10.6	9.9	−6.6	5,152	5,096	−1.1	25.4	23.9	−5.9
Indiana	40,866	39,726	−2.8	9.9	9.4	−5.1	2,728	2,711	−0.6	26.1	25.0	−4.2
Iowa	26,811	25,709	−4.1	10.3	9.7	−5.8	1,329	1,323	−0.5	20.9	20.8	−0.5
Kansas	19,315	19,344	+0.2	9.6	9.6	0	1,243	1,297	+4.3	25.0	25.2	+0.8
Kentucky	27,551	26,469	−3.9	9.3	8.8	−5.4	2,522	2,292	−9.1	34.3	30.1	−12.2
Louisiana	25,298	24,595	−2.8	8.8	8.4	−4.5	2,774	2,609	−5.9	33.3	30.7	−7.8
Maine	9,979	9,907	−0.7	10.9	10.7	−1.8	571	523	−8.4	26.8	23.9	−10.8
Maryland	23,797	23,247	−2.3	9.4	8.9	−5.3	1,705	1,776	+4.2	28.6	28.4	−0.7
Massachusetts	.....	.....	....	....	....	....	.....	.....	....	....	....	....
Michigan	61,806	60,303	−2.4	9.0	8.6	−4.4	4,695	4,771	+1.6	25.8	25.0	−3.1
Minnesota	29,726	28,328	−4.7	9.7	9.1	−6.2	1,864	1,824	−2.1	23.9	22.8	−4.6
Mississippi	20,343	19,408	−4.6	9.3	8.8	−5.4	2,548	2,355	−7.6	38.4	34.5	−10.2
Missouri	45,862	43,942	−4.2	11.2	10.6	−5.4	2,584	2,485	−3.8	26.5	25.7	−3.0
Montana	6,114	6,039	−1.2	10.0	9.6	−4.0	481	385	−20.0	28.5	22.6	−20.7
Nebraska	13,403	12,838	−4.2	10.0	9.4	−6.0	769	727	−5.5	23.8	21.7	−8.8
Nevada	2,076	2,022	−2.6	10.1	9.3	−7.9	173	146	−15.6	34.3	25.4	−25.9
New Hampshire	6,282	6,268	−0.2	11.9	11.8	−0.8	281	278	−1.1	23.9	23.0	−3.8
New Jersey	51,546	50,375	−2.3	10.0	9.6	−4.0	2,515	2,661	+5.8	23.3	23.5	+0.9
New Mexico	5,696	5,534	−2.8	7.5	7.1	−5.3	1,111	1,074	−3.3	44.4	42.5	−4.3
New York	164,183	159,541	−2.8	10.8	10.3	−4.6	8,055	7,930	−1.6	24.6	23.4	−4.9
North Carolina	32,278	32,108	−0.5	7.7	7.6	−1.3	3,725	3,513	−5.7	32.5	30.3	−6.8
North Dakota	5,130	5,014	−2.3	8.3	7.9	−4.8	449	436	−2.9	26.4	25.5	−3.4
Ohio	85,765	82,265	−4.1	10.2	9.6	−5.9	5,443	5,268	−3.2	25.8	23.8	−7.8
Oklahoma	19,307	19,703	+2.1	8.6	8.7	+1.2	1,417	1,359	−4.1	27.4	26.1	−4.7
Oregon	14,667	14,767	+0.7	9.2	9.0	−2.2	942	861	−8.6	23.8	22.6	−5.0
Pennsylvania	112,414	107,943	−4.0	10.5	10.0	−4.8	6,107	6,004	−1.7	25.5	24.6	−3.5
Rhode Island	8,170	8,229	+0.7	10.0	10.0	0	416	406	−2.4	22.0	21.0	−4.5
South Carolina	17,316	17,604	+1.7	7.9	7.9	0	2,038	2,086	+2.4	33.0	31.9	−3.3
South Dakota	5,852	5,748	−1.8	8.9	8.6	−3.4	425	438[1]	+3.1	23.5	24.5	+4.3
Tennessee	30,757	29,674	−3.5	9.2	8.8	−4.3	2,730	2,781	+1.9	32.3	32.0	−0.9
Texas	66,433	66,231	−0.3	8.0	7.8	−2.5	8,146	7,538	−7.5	34.7	31.1	−10.4
Utah	5,395	5,292	−1.9	7.4	7.0	−5.4	565	506	−10.4	23.4	20.3	−13.2
Vermont	4,106	3,952	−3.8	10.9	10.3	−5.5	222	215	−3.2	24.5	23.8	−2.9
Virginia	29,970	29,065	−3.0	8.4	8.1	−3.6	2,779	2,843	+2.3	31.7	31.3	−1.3
Washington	23,489	23,441	−0.2	9.5	9.2	−3.2	1,511	1,534	+1.5	24.0	23.0	−4.2
West Virginia	16,790	16,325	−2.8	8.7	8.4	−3.4	1,427	1,340	−6.1	30.1	28.2	−6.3
Wisconsin	34,939	33,697	−3.6	9.9	9.4	−5.1	1,949	2,028	+4.1	22.1	22.3	+0.9
Wyoming	2,372	2,430	+2.4	7.8	7.8	0	239	262	+9.6	27.4	29.8	+8.8

[1] Revised figure supplied by State office. NOTE: Rates for deaths at all ages are per 1,000 estimated midyear population in each specified area; infant mortality rates are deaths under one year per 1,000 live births in each specified area. Data are by place of occurrence, exclusive of fetal deaths and of deaths among armed forces overseas. Data are provisional.

Death Rates* by Age and Sex; U. S., 1900–1954

Source: U. S. Public Health Service.

Age group, years	1900	1920	1940	1950	1954	1900	1920	1940	1950	1954
	White Males					White Females				
Under 1	175.9	98.1	56.7	34.0	30.9	142.6	76.1	43.6	25.7	23.5
1–4	20.2	9.8	2.8	1.4	.8	18.7	9.0	2.4	1.1	.6
5–14	3.8	2.7	1.1	.7		3.8	2.3	.8	.5	
15–24	5.8	4.2	2.0	1.5	1.5	5.6	4.3	1.4	.7	.5
25–34	8.1	5.9	2.8	1.9	1.8	8.1	6.5	2.2	1.1	.9
35–44	10.6	7.7	5.1	3.8	3.3	9.6	7.3	3.7	2.4	2.0
45–54	15.5	12.0	11.4	9.8	9.1	14.0	10.9	7.5	5.5	4.9
55–64	28.5	24.2	25.2	23.0	21.8	25.5	21.7	16.8	12.9	11.5
65–74	59.1	54.2	54.0	48.6	47.6	53.4	49.9	41.5	32.4	29.9
75–84	128.2	122.5	122.0	105.3	98.8	118.9	116.4	104.8	84.8	78.6
	Nonwhite Males					Nonwhite Females				
Under 1	369.3	167.7	101.2	59.9	55.6	299.5	131.1	77.4	47.5	45.2
1–4	43.4	15.0	5.3	2.7	1.3	43.5	14.2	4.4	2.3	1.0
5–14	7.8	3.7	1.6	1.0		10.1	3.9	1.4	.7	
15–24	11.8	9.9	5.0	2.9	2.6	11.2	10.8	5.0	2.2	1.2
25–34	12.5	12.2	8.5	5.0	4.3	11.7	13.5	7.4	3.9	2.7
35–44	14.2	14.4	13.2	8.6	7.5	15.6	16.0	11.7	7.5	6.2
45–54	24.7	20.1	24.5	18.6	15.7	23.9	23.4	21.1	15.5	13.8
55–64	42.1	31.1	37.1	34.8	32.6	42.1	35.8	33.2	27.6	23.4
65–74	71.6	60.2	62.8	57.9	58.3	66.4	60.4	52.3	46.1	44.5
75–84	131.4	116.0	108.8	90.3	79.4	113.2	106.4	84.1	70.6	61.9

* Rates per 1,000 population of specified age, sex and race; 1954 is estimated.

Crude Death Rate for Selected Countries, 1938, 1948, 1953, 1954

Source: Statistical Office of the United Nations.

Country	Rate[1]				Country	Rate[1]			
	1938	1948	1953	1954		1938	1948	1953	1954
North America					Europe (cont.)				
Canada[2]	9.7	9.3	8.6	8.1	Hungary	14.3	11.2	*	*
Costa Rica	17.7	13.2	11.7	10.6	Ireland	13.6	12.2	11.8	*
El Salvador	19.1	16.9	14.6	14.8	Italy	14.1	10.6	9.9	9.0
Mexico	22.9	16.7	15.6	*	Luxemburg	12.7	11.8	12.5	*
Nicaragua	12.0	14.4	10.2	*	Netherlands	8.5	7.4	7.7	7.5
Panama[3]	14.2	10.2	9.0	7.7	Norway	9.9	8.9	8.5	*
Puerto Rico	18.7	12.0	8.1	7.6	Portugal	15.4	13.0	11.3	10.9
United States	10.6	9.9	9.6	9.2	Rumania	19.2	*	*	*
South America					Spain	19.3	11.1	9.7	9.1
Chile	23.5	17.4	13.2	*	Sweden	11.5	9.8	9.7	9.6
Peru[4]	16.2	11.7	10.2	*	Switzerland	11.6	10.8	10.2	10.0
Venezuela	18.3	12.8	9.9	10.1	United Kingdom	11.8	10.9	11.4	11.4
Europe					Asia				
Austria	14.0	12.1	12.0	12.1	Ceylon	21.0	13.2	10.9	10.4
Belgium	13.2	12.6	12.1	12.4	India[6]	23.7	17.0	15.0	*
Bulgaria	13.7	*	*	*	Israel[7]	8.1	6.7	6.3	6.4
Czechoslovakia	13.2	11.5	*	*	Japan[8]	17.7	12.0	8.9	8.2
Denmark	10.3	8.6	9.0	9.1	Other				
Finland[5]	12.8	11.2	9.6	9.1	Australia[9]	9.6	10.0	9.1	*
France	15.8	12.5	13.0	11.9	New Zealand[10]	9.7	9.2	8.8	9.0
Germany, West	11.4	10.3	11.0	10.4	U. of So. Africa[11]	9.5	8.9	8.9	8.6

[1] Number of deaths per 1,000 population. [2] Excluding Yukon and Northwest Territories. [3] Excluding tribal Indians. [4] Excluding Indian jungle population. [5] Prior to 1951, data relate to Finnish Nationals in Finland. [6] Registration area only. [7] Jewish population only. [8] Japanese nationals in Japan only. [9] Excludes full-blooded aborigines. [10] Excluding Maoris. [11] European population only. * Not available.

Average of Annual Death Rates for Selected Causes; U. S., 1900–1954

Source: U. S. Public Health Service.

Cause of death	Death rates per 100,000 in						
	5th revision					Sixth revision	
	1900–04	1920–24	1940–44	1945–49	1950	1950	1954 est.
Typhoid fever	26.8	7.4	.7	.2	.1	.1	¶
Communicable diseases of childhood	65.3	34.0	4.6	2.3	1.3	1.5	.7
Measles	10.0	7.2	1.1	.5	.3	.3	.3
Scarlet fever	11.8	4.0	.3	.1	†	.2	.1
Whooping cough	10.7	9.0	2.2	1.0	.7	.7	.2
Diphtheria	32.8	13.8	1.0	.7	.3	.3	.1
Diarrhea and enteritis	115.6	43.2	9.8	6.5	5.0	5.1	5.3
Pneumonia and influenza	184.4	141.1	63.8	42.5	35.1	31.3	25.2
Influenza	22.9	35.2	13.1	5.1	3.5	4.4	1.5
Pneumonia	161.5	105.9	50.7	37.4	31.6	26.9	23.7
Tuberculosis	184.8	97.1	43.5	33.5	23.4	22.5	10.5
Cancer	67.6	86.8	123.2	133.8	138.4	139.8	147.0
Diabetes mellitus	12.2	17.0	26.2	26.8	28.4	16.2	15.4
Cardiovascular-renal diseases	338.2	340.9	466.1	465.5	465.0	510.8	491.1
Diseases of the heart	147.7	165.1	302.2	318.6	326.1	355.5	343.4
Cerebral hemorrhage	106.3	93.4	91.8	91.5	92.0	104.0	103.6
Chronic nephritis	84.2	81.4	72.1	55.3	46.9	16.4	11.0
Syphilis	12.9	17.5	12.7	8.9	6.8	5.0	3.1
Appendicitis	9.3	14.0	7.3	3.5	2.2	2.0	1.3
Accidents, all forms	79.1	71.6	73.4	68.4	63.8	60.6	56.9
Motor vehicle accidents	—	12.8	22.7	22.3	23.1	23.1	23.1
Infant mortality*	—	77.1	42.6	33.5	29.2	29.2	26.8
Neonatal mortality*	—	39.8	26.3	22.9	20.5	20.5	19.2
Fetal mortality*	—	39.2††	28.6	24.5	22.9	22.9	¶
Maternal mortality*	—	6.9	2.9	1.4	.8	.8	.5
All causes	1622.3	1198.0	1062.8	1005.4	963.8	963.8	918.8

* Rates per 1,000 live births. † Less than .05. †† 1922–24. ¶ Not available. NOTE: Rates per 100,000 population. The figures beginning with 1940 relate to the total United States; for earlier periods the figures relate to the Death Registration States. The death rates for 1950 are shown on the basis of both the Fifth and the Sixth Revision of the International List of Causes of Death. Because of radical changes from the Fifth to the Sixth Revisions, the death rates are not strictly comparable. Death rates for 1954 are based upon the Sixth Revision; 1954 figures are estimates.

Death Rates by Marital Status, Age, and Sex; U. S., Annual Average for 1949–51

Source: D. Shurtleff, "Mortality and Marital Status," Public Health Reports, March 1955.

Age (in years)	Male					Female				
	Single	Married	Widowed	Divorced	Total[1]	Single	Married	Widowed	Divorced	Total[1]
Under 20[3]	3.4	1.6	2.0	2.3	3.4	2.6	1.0	4.8	1.6	2.5
20–24	2.2	1.5	5.7	3.4	1.9	1.2	.9	3.4	1.7	1.0
25–34	3.6	1.7	8.6	5.8	2.2	2.2	1.2	4.1	2.6	1.4
35–44	8.5	3.6	12.1	11.8	4.3	3.9	2.6	6.2	4.5	2.9
45–54	17.8	9.3	21.6	23.2	10.7	7.0	5.7	10.3	8.1	6.5
55–59	30.0	17.8	30.4	36.5	20.0	11.5	10.2	14.8	13.8	11.4
60–64	41.0	25.8	39.5	48.6	29.0	16.6	15.7	20.7	21.1	17.5
65–69	55.0	36.5	50.0	66.1	41.1	24.8	23.5	28.1	33.1	26.0
70–74	78.8	54.3	69.1	91.9	60.4	42.3	39.0	44.8	58.2	43.2
75 and over	137.3	100.3	139.0	173.3	119.4	103.6	76.0	106.2	129.2	101.6
All ages[2]	5.4	12.1	70.5	26.1	11.1	3.9	5.8	41.1	8.8	8.3

[1] Includes deaths for which marital status was not stated. [2] Includes deaths for which age was not stated. [3] Rates for "Total" and "Single" are based on deaths and population at ages 0–19 years. Rates for "Married," "Widowed," and "Divorced" are based on deaths and population at ages 15–19 years. NOTE: Rates are per 1,000 population in each specified group enumerated in the Census of April 1, 1950. Deaths among armed forces overseas are excluded.



Source; U. S. Public Health Service. *Pictograph Cor*

Average Annual Accidental Death Rates,* 1949-50

Source; Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various reports by t National Office of Vital Statistics.

State	Accidents, total	Motor vehicles	Falls	Burns and conflagrations	Drownings	Firearms	Machinery	Absorption of poisonous gas	Poisoning by solids and liquids	Water transport
Alabama	62.4	25.9	7.2	6.6	2.9	2.7	1.2	0.4	1.4	2.0
Arizona	80.9	36.1	8.3	5.5	5.7	3.7	0.8	1.0	1.3	0.5
Arkansas	62.2	20.6	10.0	7.8	3.6	2.1	1.7	6.4	1.3	1.4
California	62.2	30.0	9.7	3.8	3.2	1.2	0.9	1.1	1.7	1.0
Colorado	71.3	27.8	14.7	3.9	4.6	2.3	1.6	1.2	1.1	0.7
Connecticut	44.8	12.9	15.4	3.2	3.0	0.3	0.4	2.1	1.1	0.6
Delaware	61.9	24.5	14.0	7.1	4.1	1.7	0.8	0.8	1.1	1.1
D. C.	56.2	15.9	17.4	4.9	3.4	0.4	0.5	0.7	1.2	1.1
Florida	66.1	27.5	9.8	4.4	5.9	2.0	0.6	0.9	1.3	2.3
Georgia	59.8	24.0	8.9	6.4	2.9	2.8	1.1	0.4	1.7	1.2
Idaho	83.9	33.7	11.0	4.6	6.5	3.6	3.3	0.5	1.0	1.3
Illinois	59.8	22.3	16.5	4.5	2.9	1.3	1.2	0.8	1.1	0.7
Indiana	68.4	27.9	18.1	4.4	2.8	1.2	1.6	0.9	1.0	0.6
Iowa	66.0	23.4	20.7	5.1	2.7	1.3	1.9	0.7	0.7	0.8
Kansas	71.7	27.2	17.4	5.5	3.3	1.7	2.5	1.4	0.9	0.5
Kentucky	68.4	24.8	13.8	6.5	3.3	2.5	1.3	0.6	1.1	1.2
Louisiana	59.7	19.9	8.8	6.4	4.8	2.3	1.4	0.4	1.2	2.9
Maine	62.1	17.3	16.5	6.6	4.6	2.0	1.0	1.2	1.0	2.9
Maryland	54.4	18.2	13.4	4.9	3.7	1.0	1.0	1.3	1.2	1.7
Massachusetts	51.5	11.3	23.2	3.0	2.8	0.4	0.6	2.0	1.2	0.6
Michigan	61.1	26.0	15.2	4.8	3.1	1.0	1.1	0.9	0.8	1.2
Minnesota	60.3	19.8	17.1	4.3	3.8	1.3	1.7	0.9	0.9	1.4
Mississippi	61.5	22.4	6.3	9.2	4.8	2.8	1.6	0.2	1.4	1.2
Missouri	67.7	22.8	19.9	6.4	2.9	2.0	1.4	0.7	1.0	0.9
Montana	96.7	29.7	18.4	7.2	5.7	3.9	3.1	2.6	1.5	1.1
Nebraska	67.4	22.1	18.9	4.0	3.3	1.9	2.8	0.9	0.7	0.3
Nevada	108.1	46.7	9.8	8.2	5.3	4.4	2.8	1.3	1.6	0.6
New Hampshire	56.5	16.3	17.4	6.0	3.9	1.7	1.4	0.9	0.8	1.6
New Jersey	42.6	13.3	13.4	2.9	2.9	0.5	0.5	2.2	0.8	0.8
New Mexico	82.3	37.0	7.3	7.2	4.7	3.4	2.3	1.7	1.2	0.3
New York	50.2	14.1	18.6	3.2	3.1	0.5	0.6	2.3	0.7	0.8
North Carolina	57.6	25.6	6.8	5.3	2.9	1.8	1.0	0.3	1.7	1.4
North Dakota	68.3	21.5	15.1	4.4	4.3	3.1	3.0	1.2	1.3	0.7
Ohio	61.7	23.1	18.5	4.1	2.5	1.0	1.0	1.2	1.0	0.7
Oklahoma	66.5	24.4	13.7	6.4	3.2	2.7	1.8	1.2	1.0	0.7
Oregon	77.5	28.4	12.6	4.4	5.5	2.7	2.9	1.3	0.9	2.5
Pennsylvania	54.2	16.6	17.3	3.8	2.5	0.9	1.0	1.3	0.9	0.4
Rhode Island	48.4	10.6	23.0	2.0	3.6	0.4	0.7	1.9	0.9	0.2
South Carolina	65.0	28.0	7.1	7.6	3.7	2.7	0.8	0.5	1.5	1.8
South Dakota	72.3	27.6	14.6	4.9	3.4	2.2	3.3	1.1	1.1	1.3
Tennessee	55.1	22.6	9.6	5.8	2.4	1.9	0.8	0.3	1.0	1.3
Texas	69.4	29.1	10.2	6.2	5.2	2.6	1.4	0.6	1.2	0.7
Utah	70.8	27.8	13.1	3.6	4.1	2.9	2.4	0.4	0.6	0.4
Vermont	64.5	19.5	16.3	4.6	5.7	3.3	1.6	0.8	1.2	1.5
Virginia	61.5	23.8	9.4	6.4	3.6	2.3	0.8	1.0	1.8	1.4
Washington	70.8	21.7	14.2	4.8	5.5	1.9	1.9	2.3	1.1	2.1
West Virginia	69.9	20.7	12.7	5.9	4.5	2.9	1.4	1.3	1.1	0.7
Wisconsin	60.5	22.8	16.8	3.5	3.1	1.2	1.7	1.3	0.6	1.2
Wyoming	103.4	42.5	11.2	5.5	5.9	3.9	3.0	3.0	1.4	0.7
United States	60.7	22.2	14.4	4.8	3.4	1.5	1.2	1.2	1.1	1.0

* Per 100,000 population.

Motor-Vehicle Deaths by Type of Accident, 1913 to 1954

Source: National Safety Council.

Year	Deaths from collisions with—							Deaths from non-collision accidents*	Total deaths†
	Pedestrians	Other motor vehicles	Railroad trains	Street cars	Bicycles	Animal-drawn vehicle or animal	Fixed objects*		
1913	.....	.....	.....	...	...	...	....	....	4,200
1918	.....	.....	.....	...	...	...	....	....	10,700
1923	.....	.....	.....	...	...	950	....	....	18,400
1928	11,420	4,310	2,140	570	400	310	540	8,070	28,000
1933	12,840	6,470	1,437	318	400	310	900	8,680	31,363
1938	12,850	8,900	1,490	165	720	170	940	7,350	32,582
1943	9,900	5,300	1,448	171	450	160	700	5,690	23,823
1948	9,950	10,200	1,474	83	500	100	1,000	8,950	32,259
1950	9,100	11,250	1,541	89	450	110	1,300	10,950	34,763
1951	9,200	12,600	1,573	46	450	100	1,400	11,600	36,996
1952	8,600	12,900	1,429	32	400	100	1,500	12,850	37,794
1953	8,600	12,900	1,419	40	450	100	1,500	13,300	38,300
1954	7,900	12,000	1,230	40	400	80	1,550	12,800	36,000

* The proportion of deaths allocated to fixed-object collisions and noncollision accidents is different from that reported by most states. State reports generally indicate that many accidents involving no collision on the roadway are classified as fixed-object collisions because the motor vehicle collides with an object after leaving the roadway.

† The totals do not quite equal the sum of the various types because the estimates were generally made only to the nearest 10 deaths, and to the nearest 50 deaths for certain types.

Motor-Vehicle Traffic Deaths by States, 1953-54

Source: National Safety Council.

State	1953	Rate[1]	1954	Rate[1]	State	1953	Rate[1]	1954	Rate[1]
Alabama	835	9.7	774	8.6	Nebraska	343	6.0	328	5.4
Arizona	397	10.1	402	10.2	Nevada	143	10.6	146	10.2
Arkansas	454	8.5	412	7.3	New Hampshire	93	4.9	88	4.4
California	3,371	6.8	3,104	6.1	New Jersey	784	4.2	806	4.0
Colorado	338	5.9	388	6.4	New Mexico	416	11.7	371	10.3
Connecticut	279	3.7	241	3.1	New York	2,236	6.1	2,046	5.4
Delaware	111	7.6	94	6.3	North Carolina	1,118	8.3	991	7.3
D. C.	66	2.6	56	2.2	North Dakota	160	8.0	150	6.8
Florida	954	7.6	970	7.2	Ohio	2,047	6.6	1,883	5.9
Georgia	937	8.1	970	8.0	Oklahoma	549	6.4	579	6.5
Idaho	198	7.7	242	8.8	Oregon	390	5.8	421	6.2
Illinois	2,179	7.5	2,059	7.0	Pennsylvania	1,643	5.2	1,552	4.8
Indiana	1,276	7.6	1,077	6.3	Rhode Island	70	2.9	63	2.4
Iowa	601	5.8	612	5.9	South Carolina	763	11.2	564	8.2
Kansas	579	7.3	611	7.4	South Dakota	187	7.0	189	7.0
Kentucky	864	10.6	758	8.8	Tennessee	849	8.5	739	6.9
Louisiana	700[2]	8.9	632[2]	7.5	Texas	2,368	6.7	2,431	6.6
Maine	172	5.4	148	4.4	Utah	209	7.7	209	7.4
Maryland	524	6.6	522	6.3	Vermont	80	5.9	62	4.5
Massachusetts	636	4.1	516	3.8	Virginia	904	7.6	810	6.6
Michigan	1,905	7.5	1,785	6.9	Washington	483	5.2	412	4.4
Minnesota	638	6.0	640	5.7	West Virginia	446	8.8	350	6.7
Mississippi	469	7.6	445	6.9	Wisconsin	881	7.3	842	6.7
Missouri	1,020	6.5	974	6.0	Wyoming	173	9.1	148	7.7
Montana	250	8.6	220	7.9	TOTAL U. S.	38,300[3]	7.1	36,000[3]	6.4

[1] Number of deaths per 100,000,000 vehicle-miles. [2] From state health authorities. [3] Totals are not sums of state figures. NOTE: Figures are per state traffic authorities and indicate place of accident rather than of death

Transportation-Accident Death Rates, 1952-54

Source: National Safety Council.

Kind of transportation	Passenger mileage, in millions	Passenger deaths			All deaths[3]		
		Deaths, 1954	Rates[1]		Deaths, 1954	Rates[1]	
			1954	1952–54[2]		1954	1952–54[2]
Passenger automobiles, taxis[4]	850,000	22,500	2.6	2.8	31,000	3.6	3.9
Busses	55,000	60	0.11	0.14	480	0.9	0.9
Railroad passenger trains	29,320	23	0.08	0.09	998	3.4	3.6
Scheduled air transport planes	17,390	16	0.09	0.32	25	0.14	0.42

[1] Per 100,000,000 miles. [2] Average death rate. [3] All persons—pedestrians, trespassers, etc., as well as passengers—killed in operation of vehicles are included. [4] Drivers of passenger automobiles are considered passengers.

Hospital Facilities in the U. S., 1954

Source: American Hospital Association.

State	Total—all hospitals			State	Total—all hospitals		
	No. of hospitals	No. of beds	Admissions		No. of hospitals	No. of beds	Admissions
Alabama	121	21,436	329,454	Nebraska	115	14,046	198,207
Arizona	71	7,256	132,733	Nevada	17	1,543	30,759
Arkansas	87	14,943	193,391	New Hampshire	41	6,611	81,380
California	422	117,655	1,503,107	New Jersey	157	55,160	560,315
Colorado	105	18,493	249,169	New Mexico	52	5,445	92,850
Connecticut	72	23,648	286,795	New York	503	225,957	1,980,890
Delaware	17	4,731	46,113	North Carolina	183	31,903	537,447
D. C.	28	14,970	173,818	North Dakota	52	6,884	102,012
Florida	151	23,941	406,165	Ohio	262	76,265	1,038,848
Georgia	151	27,832	404,294	Oklahoma	128	18,784	250,645
Idaho	52	3,933	85,098	Oregon	79	12,654	210,028
Illinois	353	103,829	1,185,076	Pennsylvania	348	113,324	1,333,686
Indiana	140	30,723	468,424	Rhode Island	24	9,951	93,736
Iowa	128	22,719	332,385	South Carolina	77	16,873	260,739
Kansas	153	18,724	287,364	South Dakota	68	7,199	108,823
Kentucky	127	23,605	349,636	Tennessee	154	27,001	401,128
Louisiana	135	23,148	417,989	Texas	564	60,422	1,152,066
Maine	58	8,937	102,309	Utah	39	5,442	91,641
Maryland	85	30,468	287,961	Vermont	28	4,181	53,417
Massachusetts	214	67,087	653,367	Virginia	124	32,004	422,197
Michigan	266	68,772	887,341	Washington	139	24,398	384,820
Minnesota	211	32,198	496,879	West Virginia	89	15,372	276,419
Mississippi	105	13,513	219,710	Wisconsin	218	36,862	531,494
Missouri	157	37,165	481,609	Wyoming	36	3,802	56,129
Montana	64	6,152	115,568	Total	6,970	1,577,961	20,345,431

EXPECTATION OF LIFE

THE IMPROVEMENT of health conditions in the U. S. has brought a rapid increase in the expectation of life at birth (the average length of life). The average lifetime in the country is now about 70 years, or about 30 years more than it was at the middle of the last century. In 1952, the expectation of life at birth for the population in the U. S. was 66.64 years for white males, 72.65 years for white females, 59.13 years for nonwhite males, and 63.72 years for nonwhite females.

The gains in longevity have been much greater in the period since the turn of the century than they were in the preceding 50 years. Thus, among white males, for example, the increase in the expectation of life at birth was about 10 years from 1850 to 1900–02, and about 18½ years in the following half century; among white females the corresponding increases were 10½ years and 21½ years. It is apparent from these figures that both sexes have shared in the improvement in longev-

ty, but that females have scored the greater gains.

In each sex, the increase in the expectation of life has been largest in childhood and early adult life. Yet gains have been made even at the older ages. Since the beginning of the century, the expectation of life at age 70 has increased 1⅓ years among white men and almost 2½ years among white women. Currently, white men at age 70 can look forward to over 10 years on the average, and white women to 12 additional years of life.

The nonwhite population has made very considerable gains in longevity. As a result, the difference in longevity between the nonwhite and the white population has been reduced. Nevertheless, the expectation of life at birth for nonwhites is still well below that for whites—by 7½ years among males and by almost 9 years among females.

The average length of life varies markedly from one area of the world to another, reflecting largely differences in the standard of living. In a number of countries—including the U. S., Canada, England and Wales, the Netherlands, the Scandinavian countries, Australia and New Zealand—the expectation of life at birth exceeds 65 years among males and 70 years among females. In contrast is the experience in India, where the average length of life for males is 32.5 years and for females 31.7 years. Incidentally, India is the one country with available records to show a better longevity record for males than for females. In many countries, data on mortality and longevity are either lacking or are not recent. For example, the latest data available on longevity for the U.S.S.R. (in Europe) relate to the period 1926–1927; at that time the expectation of life at birth there was 41.9 years for males and 46.8 years for females.

Expectation of Life and Mortality Rates, 1952

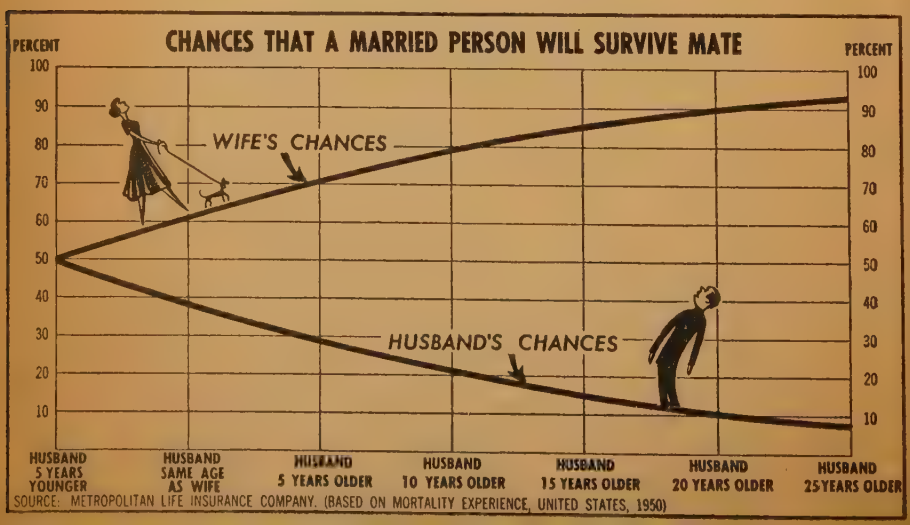
Source: Metropolitan Life Insurance Co. from abridged life tables prepared by U. S. Public Health Service.

Age, years	Expectation of life in years					Mortality rate per 1,000				
	Total persons	White Male	White Female	Nonwhite Male	Nonwhite Female	Total persons	White Male	White Female	Nonwhite Male	Nonwhite Female
0	68.6	66.6	72.7	59.1	63.7	28.6	28.8	22.2	52.5	42.0
1	69.6	67.6	73.3	61.4	65.5	2.3	2.0	1.9	4.6	3.8
2	68.7	66.8	72.4	60.7	64.8	1.4	1.4	1.1	2.6	2.2
3	67.8	65.8	71.5	59.8	63.9	1.0	1.0	.9	1.7	1.5
4	66.9	64.9	70.6	58.9	63.0	.8	.9	.7	1.4	1.3
5	66.0	64.0	69.6	58.0	62.1	.8	.9	.5	1.3	1.0
6	65.0	63.0	68.7	57.1	61.1	.7	.7	.5	1.1	.8
7	64.0	62.1	67.7	56.1	60.2	.6	.6	.5	.8	.7
8	63.1	61.1	66.7	55.2	59.2	.5	.5	.4	.7	.6
9	62.1	60.1	65.8	54.2	58.2	.5	.5	.4	.6	.5
10	61.1	59.2	64.8	53.3	57.3	.5	.5	.4	.7	.5
11	60.2	58.2	63.8	52.3	56.3	.5	.6	.4	.7	.5
12	59.2	57.2	62.8	51.3	55.3	.6	.6	.4	.9	.6
13	58.2	56.3	61.9	50.4	54.4	.6	.8	.4	1.1	.7
14	57.3	55.3	60.9	49.4	53.4	.8	.9	.5	1.3	.9
15	56.3	54.4	59.9	48.5	52.5	.9	1.1	.6	1.6	1.0
16	55.4	53.4	59.0	47.6	51.5	1.0	1.3	.6	1.9	1.2
17	54.4	52.5	58.0	46.7	50.6	1.1	1.4	.7	2.2	1.4
18	53.5	51.6	57.0	45.8	49.6	1.2	1.6	.7	2.5	1.6
19	52.6	50.6	56.1	44.9	48.7	1.3	1.7	.7	2.8	1.7
20	51.6	49.7	55.1	44.0	47.8	1.4	1.8	.7	3.1	1.9
21	50.7	48.8	54.1	43.1	46.9	1.4	1.9	.7	3.4	2.1
22	49.8	47.9	53.2	42.3	46.0	1.5	1.9	.7	3.6	2.3
23	48.8	47.0	52.2	41.4	45.1	1.5	1.9	.7	3.8	2.4
24	47.9	46.1	51.3	40.6	44.2	1.5	1.9	.8	3.9	2.4
25	47.0	45.2	50.3	39.7	43.3	1.5	1.8	.8	4.1	2.5
26	46.0	44.2	49.3	38.9	42.4	1.5	1.8	.9	4.2	2.6
27	45.1	43.3	48.4	38.1	41.5	1.6	1.7	.9	4.3	2.7
28	44.2	42.4	47.4	37.2	40.6	1.6	1.7	1.0	4.5	3.0
29	43.2	41.5	46.5	36.4	39.8	1.6	1.8	1.0	4.6	3.3

Expectation of Life and Mortality Rates (Contd.)

Age, years	Expectation of life in years					Mortality rate per 1,000				
	Total persons	White Male	White Female	Nonwhite Male	Nonwhite Female	Total persons	White Male	White Female	Nonwhite Male	Nonwhite Female
30	42.3	40.5	45.5	35.6	38.9	1.7	1.8	1.0	4.7	3.6
31	41.4	39.6	44.6	34.7	38.0	1.8	1.9	1.1	4.9	3.9
32	40.5	38.7	43.6	33.9	37.2	1.9	1.9	1.2	5.1	4.2
33	39.5	37.8	42.7	33.1	36.3	2.0	2.1	1.3	5.5	4.5
34	38.6	36.8	41.7	32.3	35.5	2.1	2.2	1.4	6.0	4.9
35	37.7	35.9	40.8	31.4	34.7	2.3	2.4	1.5	6.5	5.2
36	36.8	35.0	39.8	30.6	33.8	2.5	2.6	1.7	7.0	5.6
37	35.9	34.1	38.9	29.9	33.0	2.7	2.8	1.8	7.5	5.9
38	35.0	33.2	38.0	29.1	32.2	2.9	3.1	1.9	7.9	6.3
39	34.1	32.3	37.0	28.3	31.4	3.2	3.4	2.1	8.3	6.6
40	33.2	31.4	36.1	27.5	30.6	3.5	3.7	2.3	8.7	6.9
41	32.3	30.5	35.2	26.8	29.8	3.8	4.1	2.5	9.2	7.3
42	31.4	29.6	34.3	26.0	29.1	4.1	4.6	2.7	9.7	7.7
43	30.5	28.8	33.4	25.3	28.3	4.5	5.1	2.9	10.4	8.4
44	29.7	27.9	32.5	24.5	27.5	5.0	5.6	3.2	11.2	9.0
45	28.8	27.1	31.6	23.8	26.8	5.4	6.2	3.5	12.0	9.8
46	28.0	26.2	30.7	23.1	26.0	5.9	6.9	3.8	12.9	10.5
47	27.2	25.4	29.8	22.4	25.3	6.5	7.6	4.2	14.0	11.5
48	26.3	24.6	28.9	21.7	24.6	7.1	8.3	4.5	15.4	12.8
49	25.5	23.8	28.1	21.0	23.9	7.8	9.1	4.9	17.1	14.2
50	24.7	23.0	27.2	20.4	23.2	8.6	10.0	5.3	19.0	15.9
51	23.9	22.2	26.3	19.8	22.6	9.4	10.9	5.8	20.8	17.5
52	23.1	21.5	25.5	19.2	22.0	10.2	11.9	6.3	22.6	18.8
53	22.4	20.7	24.6	18.6	21.4	11.1	13.1	6.8	24.1	19.7
54	21.6	20.0	23.8	18.1	20.8	12.0	14.4	7.4	25.5	20.4
55	20.9	19.3	23.0	17.5	20.2	12.9	15.8	8.1	27.0	20.9
56	20.1	18.6	22.2	17.0	19.7	14.0	17.2	8.8	28.5	21.6
57	19.4	17.9	21.4	16.5	19.1	15.1	18.8	9.7	30.1	22.4
58	18.7	17.2	20.6	16.0	18.5	16.4	20.3	10.6	31.7	23.4
59	18.0	16.6	19.8	15.5	17.9	17.7	22.0	11.6	33.4	24.6
60	17.3	15.9	19.0	15.0	17.4	19.0	23.6	12.7	35.0	25.7
61	16.6	15.3	18.2	14.5	16.8	20.5	25.5	13.8	36.7	26.9
62	16.0	14.7	17.5	14.1	16.3	22.2	27.5	15.2	38.8	28.7
63	15.3	14.1	16.7	13.6	15.8	24.1	29.7	16.7	41.6	31.5
64	14.7	13.5	16.0	13.2	15.2	26.3	32.2	18.5	45.0	34.9
65	14.1	13.0	15.3	12.8	14.8	28.7	34.9	20.4	*	*

* Not computed because of deficiencies in basic data.



Expectation of Life in the United States, 1850–1952

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various publications of the National Office of Vital Statistics and the Bureau of the Census.

Calendar period	Age 0	10	20	30	40	50	60	70	80
White Males									
1850*	38.3	48.0	40.1	34.0	27.9	21.6	15.6	10.2	5.9
1890*	42.50	48.45	40.66	34.05	27.37	20.72	14.73	9.35	5.40
1900–1902†	48.23	50.59	42.19	34.88	27.74	20.76	14.35	9.03	5.10
1901–1910†	49.32	50.86	42.39	34.80	27.55	20.59	14.17	8.96	5.07
1909–1911†	50.23	51.32	42.71	34.87	27.43	20.39	13.98	8.83	5.09
1919–1921‡	56.34	54.15	45.60	37.65	29.86	22.22	15.25	9.51	5.47
1920–1929‡	57.85	54.65	45.84	37.51	29.35	21.65	14.75	9.17	5.26
1929–1931	59.12	54.96	46.02	37.54	29.22	21.51	14.72	9.20	5.26
1930–1939	60.62	55.86	46.77	38.06	29.57	21.71	14.86	9.29	5.30
1939–1941	62.81	57.03	47.76	38.80	30.03	21.96	15.05	9.42	5.38
1949–1951	66.31	58.98	49.52	40.29	31.17	22.83	15.76	10.07	5.88
1952	66.64	59.17	49.73	40.54	31.39	23.01	15.95	10.34	6.15
White Females									
1850*	40.5	47.2	40.2	35.4	29.8	23.5	17.0	11.3	6.4
1890*	44.46	49.62	42.03	35.36	28.76	22.09	15.70	10.15	5.75
1900–1902†	51.08	52.15	43.77	36.42	29.17	21.89	15.23	9.59	5.50
1901–1910†	52.54	52.89	44.39	36.75	29.28	21.86	15.09	9.52	5.43
1909–1911†	53.62	53.57	44.88	36.96	29.26	21.74	14.92	9.38	5.35
1919–1921‡	58.53	55.17	46.46	38.72	30.94	23.12	15.93	9.94	5.70
1920–1929‡	60.62	56.41	47.46	39.20	30.97	22.97	15.70	9.71	5.46
1929–1931	62.67	57.65	48.52	39.99	31.52	23.41	16.05	9.98	5.63
1930–1939	64.52	58.98	49.71	40.90	32.24	23.96	16.44	10.19	5.76
1939–1941	67.29	60.85	51.38	42.21	33.25	24.72	17.00	10.50	5.88
1949–1951	72.03	64.26	54.56	45.00	35.64	26.76	18.64	11.68	6.59
1952	72.65	64.79	55.11	45.52	36.12	27.19	19.00	12.00	6.81
Nonwhite Males¶									
1900–1902†	32.54	41.90	35.11	29.25	23.12	17.34	12.62	8.33	5.12
1901–1910†	32.57	40.73	33.78	27.97	22.23	16.64	11.87	8.29	5.43
1909–1911†	34.05	40.65	33.46	27.33	21.57	16.21	11.67	8.00	5.53
1919–1921‡	47.14	45.99	38.36	32.51	26.53	20.47	14.74	9.58	5.83
1920–1929‡	46.90	44.86	36.76	30.65	24.55	18.83	13.66	9.12	5.54
1929–1931	47.55	44.27	35.95	29.45	23.36	17.92	13.15	8.78	5.42
1930–1939	50.06	46.56	38.05	31.11	24.65	18.98	14.13	9.53	6.01
1939–1941	52.26	48.34	39.52	32.05	25.06	19.06	14.37	10.11	6.58
1949–1951	58.91	52.96	43.73	35.31	27.29	20.25	14.91	10.74	7.07
1952	59.13	53.27	44.00	35.57	27.54	20.38	14.99	11.14	8.04
Nonwhite Females¶									
1900–1902†	35.04	43.02	36.89	30.70	24.37	18.67	13.60	9.62	6.48
1901–1910†	35.65	42.52	36.17	30.09	23.81	18.08	13.17	9.52	6.50
1909–1911†	37.67	42.84	36.14	29.61	23.34	17.65	12.78	9.22	6.05
1919–1921‡	46.92	44.54	37.15	31.48	25.60	19.76	14.69	10.25	6.58
1920–1929‡	47.95	44.86	36.98	30.93	24.67	18.85	14.01	10.01	6.49
1929–1931	49.51	45.33	37.22	30.67	24.30	18.60	14.22	10.38	6.90
1930–1939	52.62	48.29	39.90	32.88	26.11	20.09	15.28	10.88	7.18
1939–1941	55.56	50.75	42.04	34.40	27.19	20.95	16.10	11.82	8.02
1949–1951	62.70	56.17	46.77	38.02	29.82	22.67	16.95	12.29	8.15
1952	63.72	57.28	47.81	38.89	30.63	23.23	17.38	12.94	9.15

* Massachusetts only; white and nonwhite combined, the latter being about one percent of the total. Longevity in Massachusetts considered to be indicative of that in the country as a whole at that time. † Original Death Registration States. ‡ Death Registration States of 1920. ¶ Data for periods 1900-1902 to 1929 1931 and 1939 1941 relate to Negroes only.

Expectation of Life by Age and Sex; Selected Countries

Source: Statistical Office of the United Nations; "Population Index" published by the Office of Population Research, Princeton University, and the Population Association of America; and The U. S. Public Health Service.

Country	Period	Average future lifetime in years at stated age											
		Males						Females					
		0	1	10	20	40	60	0	1	10	20	40	60
North America													
United States													
White	1952	66.6	67.6	59.2	49.7	31.4	15.9	72.7	73.3	64.8	55.1	36.1	19.0
Nonwhite	1952	59.1	61.4	53.3	44.0	27.5	15.0	63.7	65.5	57.3	47.8	30.6	17.4
Canada[1]	1950–52	66.3	68.3	60.2	50.8	32.5	16.5	70.8	72.3	64.0	54.4	35.6	18.6
Mexico	1940	37.9	44.4	45.4	37.6	24.8	13.4	39.8	46.2	47.9	40.0	26.6	13.5
Puerto Rico	1939–41	45.1	50.4	48.6	40.1	*	*	46.9	51.5	50.0	41.8	*	*
South America													
Chile	1940	37.9	47.9	46.4	38.4	25.1	13.0	39.8	49.4	48.5	40.8	27.8	14.4
Venezuela	1941–42	45.8	51.2	48.2	39.9	26.2	14.0	47.6	52.5	49.7	41.6	28.5	15.8
Europe													
Austria	1949–51	61.9	65.9	58.0	48.7	30.7	15.1	67.0	70.1	62.2	52.6	34.2	17.3
Belgium	1946–49	62.0	65.3	57.4	48.0	30.6	15.5	67.3	69.7	61.7	52.3	34.2	17.5
Czechoslovakia	1929–32	51.9	59.9	54.0	45.3	29.0	14.4	55.2	62.0	56.1	47.4	31.0	15.4
Denmark	1946–50	67.8	70.0	61.7	52.2	33.8	17.1	70.1	71.7	63.3	53.6	35.0	17.9
England and Wales	1952	67.1	68.2	59.7	50.1	31.4	15.1	72.4	73.1	64.6	54.8	35.8	18.5
Finland	1946–50	58.6	61.1	53.4	44.4	28.0	13.8	65.9	68.0	60.2	51.0	33.6	16.8
France[2]	1950–51	63.6	66.1	57.9	48.4	30.4	15.1	69.3	71.2	63.0	53.4	35.0	18.1
Germany (Fed. Rep.)	1949–51	64.6	67.8	59.8	50.3	32.3	16.2	68.5	71.0	62.8	53.2	34.7	17.5
Greece	1926–30	49.1	53.2	52.4	44.3	29.8	16.0	50.9	55.1	54.5	46.4	32.4	17.5
Hungary	1941	54.9	61.8	55.3	46.7	30.1	15.0	58.2	64.0	57.3	48.7	32.1	16.0
Iceland	1931–40	60.9	63.0	55.9	47.3	32.0	16.6	65.6	67.2	59.9	51.1	35.4	19.1
Ireland	1945–47	60.5	64.4	56.9	47.8	30.6	15.1	62.4	65.5	57.9	48.8	32.1	16.4
Italy	1930–32	53.8	59.7	55.5	46.8	30.4	15.2	56.0	61.3	57.2	48.5	3.21	16.1
Netherlands	1947–49	69.4	70.8	62.7	53.2	34.5	17.5	71.5	72.4	64.1	54.5	35.6	18.2
Norway	1946–50	69.3	70.7	62.6	53.3	35.2	18.4	72.7	73.6	65.2	55.6	37.0	19.5
Poland	1948	55.6	62.5	55.7	46.8	30.2	15.3	62.5	67.4	60.7	51.6	34.2	17.7
Portugal	1949–52	55.5	61.0	56.1	47.0	30.3	15.1	60.5	65.6	61.0	51.8	34.5	17.7
Scotland	1953	65.7	67.0	58.7	49.1	30.6	14.8	70.7	71.6	63.2	53.5	34.7	17.7
Spain	1940	47.1	52.4	48.6	40.0	25.4	12.4	53.2	58.8	55.5	47.0	30.7	15.2
Sweden	1946–50	69.0	69.9	61.6	52.1	33.8	17.1	71.6	72.1	63.6	54.0	35.3	18 0
Switzerland	1939–44	62.7	64.8	57.1	47.9	30.4	14.8	67.0	68.5	60.6	51.3	33.4	16.7
U.S.S.R. (Europe)	1926–27	41.9	51.4	51.7	43.2	28.0	14.9	46.8	55.5	55.7	47.4	32.1	17.1
Asia													
Formosa	1936–40	41.1	47.6	45.6	37.2	22.7	11.3	45.7	51.5	50.8	42.4	27.7	14.2
India	1941–50	32.5	39.0	39.0	33.0	20.5	10.1	31.7	37.3	39.5	32.9	21.1	11.3
Israel (Jews)	1953	68.0	69.6	61.5	52.1	33.6	16.8	70.5	72.0	63.8	54.1	35.1	17.8
Japan	1953	61.9	64.3	57.3	48.0	30.6	15.0	65.7	67.7	60.8	51.4	33.9	17.7
Korea	1938	47.2	51.1	49.9	41.6	26.2	12.8	50.6	54.5	53.2	45.1	30.0	14.8
Thailand	1947–48	48.7	52.0	47.9	39.8	25.6	12.7	51.9	55.2	50.9	42.7	28.4	14.2
Africa													
Egypt	1936–38	35.7	42.1	46.9	39.8	26.1	13.3	41.5	48.1	54.5	46.1	30.8	16.3
U. of So. Af. (Europeans)	1945–47	63.8	65.5	57.7	48.4	30.4	15.3	68.3	69.6	61.7	52.3	34.1	18.0
Oceania													
Australia	1946–48	66.1	67.3	59.0	49.6	31.2	15.4	70.6	71.5	63.1	53.5	34.9	18.1
New Zealand (Europeans)	1950–52	68.3	69.0	60.6	51.2	32.7	16.2	72.4	72.9	64.4	54.6	35.6	18.5

* Not available. [1] Excluding Yukon and Northwest Territories. [2] Excluding Saar Territory.

CRIME

Distribution of Arrests by Sex, 1954

Source: Federal Bureau of Investigation.

(Data in this table are from reports furnished the FBI by 1,389 cities over 2,500 in population. This represents about 43% of the urban population of the U. S. The FBI points out that these 1954 figures are in no way comparable to figures issued for previous years.)

Offense charged	Males	Per cent	Females	Per cent	Total	Per cent
Criminal homicide:						
Murder & nonnegligent manslaughter	1,382	.1	324	.2	1,706	.1
Manslaughter by negligence	985	.1	69	(1)	1,054	.1
Robbery	11,705	.8	515	.3	12,220	.7
Aggravated assault	16,518	1.1	3,117	1.7	19,635	1.2
Other assaults	61,438	4.1	7,147	3.9	68,585	4.1
Burglary—breaking or entering	39,036	2.6	889	.5	39,925	2.4
Larceny—theft	64,078	4.3	9,572	5.2	73,650	4.4
Auto theft	19,787	1.3	499	.3	20,286	1.2
Embezzlement & fraud	11,517	.8	1,940	1.0	13,457	.8
Stolen property; buying, receiving, etc.	2,833	.2	281	.2	3,114	.2
Forgery & counterfeiting	7,065	.5	1,097	.6	8,162	.5
Rape	3,815	.3	.....	...	3,815	.2
Prostitution & commercialized vice	6,833	.5	16,000	8.6	22,833	1.4
Other sex offenses	12,526	.8	3,572	1.9	16,098	1.0
Narcotic drug laws	5,473	.4	1,161	.6	6,634	.4
Weapons; carrying, possessing, etc.	12,625	.8	913	.5	13,538	.8
Offenses against family & children	20,007	1.3	2,119	1.1	22,126	1.3
Liquor laws	27,981	1.9	6,295	3.4	34,276	2.0
Driving while intoxicated	81,055	5.4	3,545	1.9	84,600	5.0
Disorderly conduct	140,082	9.3	27,489	14.8	167,571	9.9
Drunkenness	685,855	43.7	54,982	29.6	713,837	42.2
Vagrancy	57,449	3.8	7,236	3.9	64,685	3.8
Gambling	33,061	2.2	3,184	1.7	36,245	2.1
Suspicion	51,512	3.4	5,523	3.0	57,035	3.4
All other offenses	155,554	10.3	27,914	15.1	183,468	10.8
TOTAL ARRESTS, 1954	1,503,172	100.0	185,383	100.0	1,688,555	100.0

[1] Less than 1/10 of 1 per cent.

Arrests by Age Groups, 1954

Source: Federal Bureau of Investigation.

Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests
Under 15	65,541	18	36,997	22	40,232	30–34	210,239	50 & over	291,811
15	28,436	19	36,761	23	41,791	35–39	196,724	Not known	770
16	34,776	20	32,407	24	46,039	40–44	186,122	TOTAL	1,688,555
17	34,913	21	38,179	25–29	212,689	45–49	154,128		

Estimated Number of Major Crimes in the U. S., 1946–54

Source: Federal Bureau of Investigation.

Crime	1946	1948	1950	1952	1953	1954
Murder and nonnegligent manslaughter	8,442	7,620	7,020	7,210	7,120	6,850
Manslaughter by negligence	4,701	5,390	5,330	5,650	5,690	5,410
Rape	12,117	16,180	16,580	17,240	17,900	18,030
Robbery	62,782	54,990	53,230	58,140	63,100	67,420
Aggravated assault	67,512	77,310	80,950	87,930	92,600	93,540
Burglary—breaking or entering	357,991	377,640	411,980	442,760	479,120	519,190
Larceny—theft	941,738	978,000	1,044,160	1,202,270	1,267,020	1,340,870
Auto theft	229,920	169,540	170,780	215,310	226,530	215,940
Total major crimes	1,685,203	1,686,670	1,790,030	2,036,510	2,159,080	2,267,250

Sentenced Federal Prisoners Received from Courts, 1938–1954

Fiscal years ending June 30

Source: Federal Bureau of Prisons.

Offense	1938	1940	1945	1948	1950	1952	1953	1954
Counterfeiting & forgery	1,710	1,589	673	1,018	1,534	1,253	1,251	1,572
Drug laws: Marihuana	395	550	454	588	878	654	671	509
Narcotics	1,937	1,700	680	855	1,151	1,278	1,345	1,366
Embezzlement & fraud	704	750	340	531	609	558	536	445
Immigration laws	2,844	2,270	3,996	3,200	3,463	4,548	5,129	7,277
Income tax[1]	....	....	15	103	164	184	177	203
Juvenile delinquency	....	216	911	677	658	695	830	829
Kidnaping	41	37	20	36	41	42	49	41
Liquor laws	10,520	10,735	2,988	1,838	2,304	2,247	2,149	2,143
National Bank & Federal Reserve Act	155	157	51	141	165	164	210	294
Theft from interstate commerce	358	313	475	430	270	307	254	320
Transportation, etc., of stolen motor vehicle	1,563	1,512	1,072	2,612	2,486	2,065	2,736	2,838
White-slave traffic	447	378	209	221	185	173	243	242
Govt. reservation, D. C., high seas & terr. cases	994	1,021	986	1,069	1,145	1,369	1,616	1,487
Other	1,859	1,719	1,742	1,795	2,031	1,917	1,610	1,750
National-security offenses:								
Selective Service Act of 1940	....	....	2,613	236	97	8	2	3
Selective Service Act of 1948	....	....	....	....	39	273	277	339
Other national-defense & security laws	....	11	2,150	319	130	157	164	167
Military court-martial cases: Army	70	45	1,793	851	606	416	724	639
Navy	....	....	32	267	107	48	49	33
TOTAL ALL OFFENSES	23,597	23,003	21,200	16,787	18,063	18,896	20,022	22,497

[1] Commitments for income-tax violation not classified separately before 1943.

Methods of Execution in the United States

Source: Information Please Almanac questionnaires to the states.

State	Method	State	Method
Alabama	Electrocution	New Mexico	Lethal gas
Arizona	Lethal gas	New York	Electrocution
Arkansas	Electrocution	North Carolina	Lethal gas
California	Lethal gas	North Dakota	No death penalty
Colorado	Lethal gas	Ohio	Electrocution
Connecticut	Electrocution	Oklahoma	Lethal gas
Delaware	Hanging	Oregon	Lethal gas
D. C.	Electrocution	Pennsylvania	Electrocution
Florida	Electrocution	Rhode Island	No death penalty
Georgia	Electrocution	South Carolina	Electrocution
Idaho	Hanging	South Dakota	Electrocution
Illinois	Electrocution	Tennessee	Electrocution
Indiana	Electrocution	Texas	Electrocution
Iowa	Hanging	Utah	Hanging or shooting
Kansas	Hanging		
Kentucky	Electrocution	Vermont	Electrocution
Louisiana	Electrocution	Virginia	Electrocution
Maine	No death penalty	Washington	Hanging
Maryland	Lethal gas	West Virginia	Electrocution
Massachusetts	Electrocution	Wisconsin	No death penalty
Michigan	No death penalty	Wyoming	Lethal gas
Minnesota	No death penalty	U. S. (Fed. Gov't.)	(1)
Mississippi	Lethal gas	Alaska	Hanging
Missouri	Lethal gas	American Samoa	Hanging
Montana	Hanging	Canal Zone	Hanging
Nebraska	Electrocution	Guam	Hanging
Nevada	Lethal gas	Hawaii	Hanging
New Hampshire	Hanging	Puerto Rico	No death penalty
New Jersey	Electrocution	Virgin Islands	Hanging[2]

[1] Method shall be that used by state in which sentence is imposed. If state does not have death penalty, Federal judge shall prescribe method for carrying out death sentence. [2] In St. Croix only. NOTE: Method shown with each state is maximum penalty for murder and certain other crimes. In most states having capital punishment, jury or judge can specify whether sentence shall be death or life imprisonment.

EDUCATION

Elementary and Secondary Public School Statistics, 1953–54

Source: Information Please Almanac Questionnaire.

Note: The number of schools includes rural and one-room school houses. The number of pupils includes only full-time students. The average yearly expenditure is based on the average daily attendance.

State	Elementary			Secondary			Average yearly expenditure per pupil	Average yearly salary of teachers
	No. schools	No. pupils	No. teachers	No. schools	No. pupils	No. teachers		
Alabama[1]	([2])	448,970	13,351	([2])	254,677	9,444	$135.22	$2,729.00
Arizona	423	157,999	4,922	76	38,536	1,585	265.28	3,902.00[3]
Arkansas[4]	1,509	271,545	7,725	604	144,487	5,427	140.00	1,981.00
California	3,943	1,668,211	47,812	673	463,048	24,399	306.16	4,587.00
Colorado	1,213	208,527	6,667	356	58,239	4,284	273.34	3,456.53
Connecticut	736	268,524	8,710	141	89,491	4,283	256.36	4,093.00
Delaware	([5])	35,905	1,250	([5])	20,435	1,044	316.93	4,153.00
D. C.[6]	125	65,369	1,838	37	37,441	1,653	301.51	4,727.00
Florida[6]	1,294	415,909	12,922	465	232,700	9,044	217.00	3,697.66
Georgia[4]	1,858	632,608	18,309	683	201,628	8,507	159.21	2,758.67
Idaho	525	101,613	3,214	132	34,763	1,328	220.40	3,359.95
Illinois[4]	2,087[16]	1,027,950	34,649	296[16]	324,557	15,493	278.05	3,845.64
Indiana	([7])	617,713	18,000	([7])	185,551	8,500	300.00	4,000.00
Iowa	5,174	399,477	15,987	845	123,477	8,548	272.00	3,060.00
Kansas	3,050	313,812	12,096	604	93,531	5,207	266.20	3,203.19
Kentucky	([8])	48,431	13,036	([8])	108,154	5,936	168.00	2,350.00
Louisiana	1,080	426,648	12,205	556	125,843	6,166	229.75	3,645.62[9]
Maine	1,219	134,821	4,845	211	33,908	1,971	218.00	3,218.30[10]
Maryland	795	280,634	8,802	211	147,658	6,649	255.33	4,093.00
Massachusetts	1,692	478,040	17,478	320	216,845	10,286	260.00	4,080.00
Michigan[4]	4,532[11]	1,175,031[11]	42,528[11]	....	.....	.....	275.80	3,919.06
Minnesota	3,977	355,053	13,182	652	204,081	10,167	306.00	3,741.00
Mississippi	3,024	450,110	10,838	750	90,047	5,229	113.01	1,833.19
Missouri	5,000	516,676	17,583	650[4]	154,815	6,677	313.36	3,111.00
Montana	988[12]	89,614	4,121	176	29,028	1,633	314.00	3,483.00
Nebraska	4,411[12]	189,022	12,423	510	60,898	3,341	241.58	3,353.00
Nevada	182	39,886	1,095	33	9,065	391	271.16	3,822.43
New Hampshire	464	63,525	2,064	61	19,193	914	298.36	3,217.00
New Jersey	1,538	645,531	22,230	235	166,133	8,787	306.85	4,108.04
New Mexico	335	138,155	([13])	82	173,328	([13])	270.21	4,103.00[14]
New York	4,360	1,768,463	62,292	840	531,550	29,000	360.00	4,700.00
North Carolina	2,241	761,599	22,970	937	206,467	8,081	170.00	3,280.00
North Dakota	2,681	92,880	5,050	370	28,662	1,765	269.76	2,770.63
Ohio	2,926	1,123,242	30,786	1,139	322,804	20,353	252.58	3,857.84
Oklahoma	2,437	399,392	11,773	801	123,578	5,757	285.00	3,309.00
Oregon	1,065	236,745	8,627	221	75,819	3,243	334.13	3,988.00
Pennsylvania	5,209	1,099,173	37,988	1,316	608,169	28,658	260.52[4]	4,173.00[15]
Rhode Island	320	92,673	3,397	29	17,664	948	236.90	3,841.62
South Carolina	2,036	398,019	12,099	428	141,418	5,715	173.00	2,803.00
South Dakota	3,294	97,884	5,431	271	30,555	2,108	269.05	2,600.00
Tennessee[4]	3,644	553,998	([17])	491	134,987	([17])	144.13	2,550.00
Texas	4,032	1,278,889	36,408	1,788	335,404	19,582	229.47	3,471.00
Utah	371	114,386	3,118	149	68,747	2,411	321.89	3,595.70
Vermont	664	49,998	1,825	81	17,907	735	211.58	2,875.39
Virginia	2,342	521,112	14,802	507	174,165	8,042	177.24	2,970.00
Washington	1,107	355,254	10,460	383	164,443	5,866	290.08	4,256.30
West Virginia	3,352	297,564	10,304	382	154,427	6,116	176.08	3,040.53
Wisconsin	5,292	415,404	15,813	425	157,393	7,422	270.26	3,663.00
Wyoming	556	52,821	1,809	91	15,450	1,093	444.91	3,532.00

[1] Elementary schools, grades 1–6; secondary schools, grades 7–12. [2] The combined figure for elementary and secondary schools, is 2,855. [3] Median for elementary teachers; high school teachers, $4,611.00. [4] 1952–53. [5] 110 individual school districts. [6] Elementary schools, kindergarten through grade 6; secondary schools, grades 7 through 12. [7] The combined figure for elementary and secondary schools is 2,268. [8] The combined figure for elementary and secondary schools is 4,397. [9] Figure is for white high school teachers. [10] Secondary school teachers. [11] Elementary and secondary schools combined. [12] School districts. [13] The combined figure for elementary and school teachers is 6,147. [14] Municipal schools only; rural schools, $3,766.00. [15] 1954–55. [16] Number of school districts; in addition there are 319 unit districts. [17] The combined figure for elementary and secondary teachers is 24,532.

No country in the world has such a large elementary and secondary school population as has the U. S. Despite American devotion to education, there is a national crisis because of inadequate building facilities and too few teachers. Large sums will have to be expended to accommodate and teach the new pupils who have appeared as a result of the baby "boom" of the 1940s.

Statistics of State School Systems, 1940-52

Source: U. S. Office of Education.

Years	Enrollment					High-school graduates		Current expenditure per pupil in average daily attendance	Expenditure for textbooks free to pupils
	Total	Elementary schools		Secondary schools					
		Boys	Girls	Boys	Girls	Boys	Girls		
1940–1941	25,296,138	9,529,587	9,052,638	3,273,606	3,440,307	536,715	615,508	$ 92.38	$26,076,002
1941–1942	24,562,473	9,336,067	8,838,601	3,089,434	3,298,371	535,156	626,043	98.31	27,012,724
1942–1943	24,155,146	9,237,002	8,796,078	2,891,633	3,230,433	489,115	597,383	104.85	27,090,248
1943–1944	23,266,616	9,081,270	8,631,826	2,553,356	3,000,164	393,418	559,836	116.99	23,987,277
1944–1945	23,225,784	9,053,952	8,611,642	2,565,699	2,994,491	384,673	559,863	125.41	23,954,676
1945–1946	23,299,941	9,098,013	8,579,731	2,633,117	2,989,080	418,725	555,682	136.41	27,447,595
1946–1947	23,659,158	9,187,105	8,634,376	2,822,633	3,015,044	505,218	568,461	152.80	29,805,963
1947–1948	23,944,532	9,429,268	8,861,959	2,747,061	2,906,244	507,649	565,529	179.43	37,553,364
1948–1949	24,476,658	9,707,391	9,110,863	2,759,298	2,899,106	499,984	557,960	197.65	43,481,000
1949–1950	25,111,000	10,018,000	9,387,000	2,812,000	2,895,000	505,394	558,050	208.83	48,076,000
1950–1951	25,706,000	10,275,000	9,625,000	2,846,000	2,960,000	496,700	545,900	224.00	52,814,000
1951–1952	26,563,000	10,649,000	10,032,000	2,885,000	2,997,000	501,723	553,863	244.24	53,677,000

How the baby "boom" of the 1940s has affected our schools is shown in the above table. In 1943–44, there were 17.6 million children in elementary schools; in 1951–52, the number was 20.6 million children.

Federal Government Funds for Education, Fiscal Year 1951-52

Source: U. S. Office of Education.

Administering agency and purpose	Amount	Administering agency and purpose	Amount
Federal Security Agency[1]	$ 195,885,262	Department of the Interior	$ 45,001,390
Office of Education	114,961,478	Education for Indians in U. S.	25,414,022
Other	80,923,784	Education for natives in Alaska	2,752,043
Department of Agriculture	155,660,718	Education in the Virgin Islands	12,406
School lunch program	98,492,759	Other	16,822,919
Other	57,167,959	Department of the Treasury	2,266,000
Veterans Administration	1,423,305,412	Coast Guard Academies	2,219,000
Vocational rehabilitation	97,902,064	Other	47,000
Education and training	1,325,403,348	District of Columbia	2,856,015
Dept. of Commerce: Maritime Commission	4,377,133	Canal Zone: Public education	1,852,404
Federal merchant marine	2,572,208	Department of Justice	425,999
Other	1,804,925	Department of State	25,983,116
Department of Defense	29,500,101	Atomic Energy Commission	23,018,458
U. S. Military Academy	9,340.385	Foreign Operations Commission	12,141,000
U. S. Naval Academy	7,090,600	TOTAL	$1,922,273,008
Other	13,069,116		

[1] Became the U. S. Department of Health, Education and Welfare on Apr. 11, 1953.

The Federal government spends very little directly for education; most of that goes for the further education of veterans. Almost $1,000,000 is spent on school luncheons for children.

Enrollment in Full-time Day Schools, 1909-52

Source: U. S. Office of Education.

Type of school	1909–1910	1919–1920	1929–1930	1939–1940	1949–1950	1951–1952
Kindergartens: Public	293,970[1]	481,266	723,443	594,647	1,034,203	1,272,126
Nonpublic	52,219[1]	29,683	54,456	57,341	133,000	232,000
Residential schools for exceptional children	(2)	(2)	5,164[3]	5,777	4,459[8]	8,000[9]
Elementary schools: Public	16,604,821	18,897,661	20,555,150	18,237,451	18,370,490	19,408,740
Nonpublic	1,506,218	1,455,878	2,255,430	2,095,938	2,574,777[9]	2,921,548[9]
Residential schools for exceptional children	71,307	99,234[4]	124,153[3]	55,954	48,894[8]	53,900[9]
Other[5]	(2)	(2)	(2)	59,547	35,682	37,151
Total kindergartens and elementary schools	18,528,535	20,963,722	23,717,796	21,106,655	22,201,505	23,933,465
Secondary schools: Public high schools	915,061	2,200,389	4,399,422	6,601,444	5,706,734	5,881,797
Nonpublic high schools	117,400	213,920	341,158	457,768	672,362[9]	655,816[9]
Residential schools for exceptional children	4,005	4,500[4]	4,388	9,727	9,784[8]	11,200[9]
Other[7]	78,932	81,367	59,287	54,070	38,162	39,082
Total secondary schools	1,115,398	2,500,176	4,804,255	7,123,009	6,427,042	6,587,895
Higher education: Publicly controlled[5]	116,560	315,382	532,647	796,531	1,354,902	1,155,557
Privately controlled[5]	188,655	282,498	568,090	697,672	1,304,119	1,146,327
Total higher education	355,215	597,880	1,100,737	1,494,203	2,659,021	2,301,884

[1] 1911–12. [2] Data not available. [3] 1926–27. [4] 1917–18. [5] Distribution by control estimated before 1939–40. [6] Elementary grades in college and teacher-training elementary schools. [7] Secondary grades in college and teacher-training secondary schools. [8] 1945–46. [9] Estimated.

How education has become a major interest of the U. S. the above table shows. In a little more than 40 years, the number of high-school students has multiplied 6 times and the number of students in colleges and universities has multiplied almost 7 times. Those who continue on to graduate from high school and college also have increased impressively.

Public and Private Residential Schools for Exceptional Children

Source: U. S. Office of Education.

Type and year	States reporting*	Schools reporting	Pupils	Type and year	States reporting*	Schools reporting	Pupils
Blind:				**Mentally deficient:**			
1927	42	52	5,283	1936	47	130	21,888
1931	41	55	5,530	1940	47	105	21,883
1936	43	57	5,921	1947	47	140	21,562
1940	42	52	5,947				
1947	43	56	5,235	**Epileptic:**			
				1940	†	†	1,117
Deaf:				1947	10	10	1,096
1927	45	77	13,966				
1931	46	84	14,890	**Delinquent:**			
1936	47	81	15,505	1936	50	155	31,418
1940	47	81	14,815	1940	51	144	29,384
1947	47	81	13,123	1947	51	167	22,745

* Includes D. C., Territory of Hawaii and Puerto Rico. † Data not available. NOTE: Total number of children (all types), 1946–47: Continental U. S., 63,137; outlying parts of the U. S., 624.

Enrollment in Vocational Classes, 1954*

Source: U. S. Office of Education.

Type of class	Agriculture	Distributive occupations	Home economics	Trades & industry	Total
Evening	247,275	152,413	501,263	411,776	1,312,727
Part-time	46,164	68,206	79,710	167,628	361,708
All-day	444,063	.....	799,174	247,179	1,490,416
All types	737,502	220,619	1,380,147	826,583	3,164,851

* Provisional figures, subject to final review of state reports.

State Compulsory School Attendance Laws

Source: U. S. Office of Education.

State	Enactment*	Age limits	State	Enactment*	Age limits
Alabama	1915	7–16	Nebraska	1887	7–16
Arizona	1899	8–16	Nevada	1873	7–18
Arkansas	1909	7–16	New Hampshire	1871	6–16
California	1874	8–16	New Jersey	1875	7–16
Colorado	1889	8–16	New Mexico	1891	6–17
Connecticut	1872	7–16	New York	1874	7–16
Delaware	1907	7–16	North Carolina	1907	7–16
D. C.	1864	7–16	North Dakota	1883	7–17
Florida	1915	7–16	Ohio	1877	6–18
Georgia	1916	7–16	Oklahoma	1907	7–18
Idaho	1887	7–16	Oregon	1889	7–18
Illinois	1883	7–16	Pennsylvania	1895	8–17
Indiana	1897	7–16	Rhode Island	1883	7–16
Iowa	1902	7–16	South Carolina	1915	7–16
Kansas	1874	7–16	South Dakota	1883	7–16
Kentucky	1896	7–16	Tennessee	1905	7–17
Louisiana	1910	7–16	Texas	1915†	7–16
Maine	1875	7–17	Utah	1890	6–18
Maryland	1902	7–16	Vermont	1867	7–16
Massachusetts	1852	7–16	Virginia	1908	7–16
Michigan	1871	6–16	Washington	1871	8–16
Minnesota	1885	7–16	West Virginia	1897	7–16
Mississippi	1918	7–16	Wisconsin	1879	7–16
Missouri	1905	7–16	Wyoming	1876	7–16
Montana	1883	8–16			

* Date of enactment of 1st compulsory school attendance law. † A compulsory school attendance law was contained in a law of 1873 establishing free public schools. However, the provision was omitted in superseding legislation passed in 1876.

There is not a state in the Union that does not require school attendance through the age of 16; some demand compulsory schooling through the age of 17 and 18. This is why the U. S. has more high-school pupils than any other country in the world.

High-school and College Graduates, 1900-54

(Public and private schools)

Source: U. S. Office of Education.

Year of graduation	HIGH SCHOOL			COLLEGE*		
	Men	Women	Total	Men	Women	Total
1900	38,075	56,808	94,883	22,173	5,237	27,410
1910	63,676	92,753	156,429	28,762	8,437	37,199
1920	123,684	187,582	311,266	31,980	16,462	48,622
1929–30	300,376	366,528	666,904	73,615	48,869	122,484
1940–41	578,718	642,757	1,221,475	106,859	79,065	185,924
1946–47	558,000	631,000	1,189,000	116,890	86,410	203,300
1947–48	562,863	627,046	1,189,909	175,456	95,563	271,019
1948–49	564,000	629,000	1,193,000	263,554	101,874	365,428
1949–50	570,700	629,000	1,199,700	328,841	103,217	432,058
1950–51†	562,500	619,300	1,181,800	278,240	104,306	382,546
1951–52†	569,200	627,300	1,196,500	225,981	104,005	329,986
1952–53†	608,500	680,800	1,289,300	199,793	103,256	303,049
1953–54†	640,200	716,200	1,356,400	186,528	104,297	290,825

* Bachelors and first professional degrees. † High-school graduates are estimated.

Here again we see the extraordinary increase in high-school and college attendance. In both cases, graduation has increased more than tenfold since 1900.

White and Negro School Statistics, 1951-52

(Public elementary and secondary schools in 17 Southern states and the District of Columbia)

Source: U. S. Office of Education.

State	Enrollment		Instructional staff[1]		Average annual salary of instructional staff		Expenditure per pupil in A.D.A.[2]	
	White	Negro	White	Negro	White	Negro	White	Negro
Alabama	439,901	239,373	15,458	7,689	$2,610	$2,391	$172.48	$107.84
Arkansas	316,445	100,101	10,675	2,814	1,970	1,557	137.76	76.93
Delaware	41,578	8,765	1,888	334	.....	.....	.....	.....
D. C.	50,174	51,606	1,916	1,675	4,532	4,394	345.46	261.43
Florida	411,179	127,531	15,250	4,732	3,322	3,008	221.20	159.77
Georgia	496,363	255,870	18,312	8,079	2,649	2,444	190.15	115.39
Kentucky	532,226	36,404	18,120	1,490	.....	.....	.....	.....
Louisiana	316,122	198,257	12,381	5,920	3,248	2,864	.....	.....
Maryland	302,016	80,715	10,889	2,664	3,915	3,854	253.53	200.84
Mississippi	267,565	268,348	9,578	6,732	2,025	1,035	147.49	39.93
Missouri	611,086	61,997	22,836	1,922	.....	.....	.....	.....
North Carolina	641,081	273,188	22,203	8,474	3,267	3,322	186.30	149.60
Oklahoma	473,374	36,902	16,981	1,509	.....	.....	.....	.....
South Carolina	284,541	227,658	10,525	7,193	2,673	2,001	195.52	98.14
Tennessee	565,892	110,780	19,916	3,558	.....	.....	.....	.....
Texas	1,249,156	206,592	47,683	7,760	3,232	3,099	.....	.....
Virginia	476,499	162,268	17,585	5,416	2,641	2,584	.....	.....
West Virginia	414,589	25,978	15,279	991	.....	.....	.....	.....
TOTAL	7,889,787	2,472,333	287,475	78,952	2,975	2,587	190.69	115.67

[1] Includes supervisors, principals, teachers. [2] Average daily attendance.

This table shows why the Supreme Court ordered the desegregation of Southern schools, for facilities obviously were not "equal." In Mississippi, for example, expenditures on white pupils were more than 3 times those on Negro pupils.

Degrees Granted by Institutions of Higher Education, 1953-54

(including Alaska, Hawaii and Puerto Rico)

Source: U. S. Office of Education.

Field of study	Bachelor's and first professional		Master's and second professional		Doctor's	
	Men	Women	Men	Women	Men	Women
Agriculture	7,687	145	1,279	23	508	7
Biology	4,161	1,686	336	99	127	20
Business & Commerce	35,255	5,689	2,829	285	113	5
Chemistry	4,727	1,064	972	126	968	45
Economics	5,938	790	547	62	233	12
Education	9,837	37,546	14,021	12,054	1,148	240
Engineering	22,264	65	4,189	15	594	...
English	4,729	7,837	862	812	290	66
History	6,418	2,967	864	356	321	34
Home Economics	81	7,386	10	580	5	20
Languages, foreign	1,473	2,320	439	381	182	48
Law	8,976	322	329	12	30	1
Mathematics	2,722	1,368	579	127	213	14
Medicine, M.D. only	6,414	343	...	...	...	...
Music	2,545	3,694	1,034	543	68	5
Nursing	62	5,047	18	464	...	2
Pharmacy	3,542	343	139	8	72	3
Physical Education	4,592	2,321	979	287	75	21
Political Science	4,314	1,018	455	79	143	10
Psychology	3,085	2,673	885	369	553	66
Sociology	2,387	3,315	323	117	156	28
Speech & dramatic arts	1,653	1,765	446	285	126	21
Theology	4,344	119	615	42	164	5
TOTAL*	187,500	105,380	38,147	18,676	8,181	815

* Includes studies not listed.

School Enrollment, 5 to 34 Years Old

Source: U. S. Bureau of the Census.

Sex and age	October 1952		October 1953		October 1954	
	Number enrolled	% enrolled	Number enrolled	% enrolled	Number enrolled	% enrolled
MALE						
5 and 6 years	2,590,000	75.3	2,882,000	77.8	2,746,000	76.3
7 to 13 years	8,992,000	98.7	9,404,000	99.2	10,139,000	99.2
14 to 17 years	3,705,000	85.2	3,844,000	86.8	4,002,000	88.7
18 and 19 years	604,000	36.9	642,000	37.7	730,000	40.6
20 to 24 years	595,000	16.5	636,000	18.5	677,000	19.1
25 to 29 years	258,000	4.8	301,000	5.5	356,000	6.7
30 to 34 years	94,000	1.7	113,000	2.0	109,000	1.9
TOTAL	16,838,000	50.9	17,822,000	52.7	18,759,000	54.0
FEMALE						
5 and 6 years	2,472,000	75.1	2,809,000	79.4	2,698,000	78.3
7 to 13 years	8,702,000	98.8	9,120,000	99.6	9,813,000	99.6
14 to 17 years	3,636,000	84.9	3,695,000	85.0	3,782,000	85.4
18 and 19 years	457,000	22.2	538,000	25.9	538,000	25.4
20 to 24 years	279,000	5.0	346,000	6.4	322,000	6.0
25 to 29 years	38,000	0.6	33,000	0.5	103,000	1.7
30 to 34 years	43,000	0.7	87,000	1.4	68,000	1.1
TOTAL	15,627,000	43.1	16,628,000	45.2	17,324,000	46.3
TOTAL						
5 and 6 years	5,062,000	75.2	5,691,000	78.6	5,444,000	77.3
7 to 13 years	17,694,000	98.8	18,525,000	99.4	19,952,000	99.4
14 to 17 years	7,341,000	85.1	7,538,000	85.9	7,784,000	87.1
18 and 19 years	1,061,000	28.7	1,180,000	31.2	1,268,000	32.4
20 to 24 years	874,000	9.5	981,000	11.1	999,000	11.2
25 to 29 years	296,000	2.6	334,000	2.9	459,000	4.1
30 to 34 years	137,000	1.2	200,000	1.7	176,000	1.5
TOTAL	32,465,000	46.8	34,450,000	48.8	36,083,000	50.0

NOTE: Figures include children enrolled in kindergarten.

Even over a single year, increases in school attendance have been noteworthy. In 1952, 73.4% of the 16- and 17-year-olds were attending school; in 1953, the proportion was 74.7%. In the earlier year, 28.7% of the 18- and 19-year-olds were attending school; in the latter year, the proportion was 31.2%.

Estimated Public and Private School Enrollment, 1954-55

Source: U. S. Office of Education.

Type of school	Enrollment
Elementary schools*	
Public	24,091,500
Private and parochial	3,506,200
Residential schools for exceptional children	65,000
Model and practice schools in teacher-training institutions	38,300
Federal schools for Indians	27,400
Total elementary	27,728,400
Secondary schools	
Public	6,582,300
Private and parochial	774,800
Residential schools for exceptional children	11,100
Model and practice schools in teacher-training institutions and preparatory dept. of colleges	40,500
Federal schools for Indians	12,300
Total secondary	7,421,000
Higher Education	
Universities, colleges, professional schools, including junior colleges and normal schools	2,715,000
Other schools	
Private commercial schools	144,000
Nurse-training schools (not affiliated with colleges and universities)	69,500
Total other schools	216,000
Grand total	38,077,900

NOTE: These estimates include enrollments for the entire school or college year; they are not restricted to September enrollments alone.

* Including kindergartens.

Academic Degree Abbreviations

Source: for this page: American Council on Education.

Ae.E.	Aeronautical Engineer
B.A.	Bachelor of Arts
B.Ag.	Bachelor of Agriculture
B.App.Arts	Bachelor of Applied Arts
B.Arch.	Bachelor of Architecture
B.B.A.	Bachelor of Business Administration
B.B.S.	Bachelor of Business Science
B.C.E.	Bachelor of Civil Engineering
B.Ch.E.	Bachelor of Chemical Engineering
B.D.	Bachelor of Divinity
B.Dr.Art	Bachelor of Dramatic Art
B.Ed.	Bachelor of Education
B.E.E.	Bachelor of Electrical Engineering
B.F.A.	Bachelor of Fine Arts
B.J.	Bachelor of Journalism
B.L.	Bachelor of Letters
B.Litt.	Bachelor of Literature
B.Med.	Bachelor of Medicine
B.Mus.	Bachelor of Music or in Music
B.N.	Bachelor of Nursing
B.Pharm.	Bachelor of Pharmacy
B.Ph.	Bachelor of Philosophy
B.S.	Bachelor of Science
B.Th.	Bachelor of Theology
C.E.	Civil Engineer
Ch.E.	Chemical Engineer
D.C.E.	Doctor of Civil Engineering
D.C.L.	Doctor of Civil Law
D.C.S.	Doctor of Commercial Science
D.D.	Doctor of Divinity
D.D.S.	Doctor of Dental Surgery
D.Ed.	Doctor of Education
D.M.L.	Doctor of Modern Languages
D.M.S.	Doctor of Medical Science
D.P.H.	Doctor of Public Health
D.R.E.	Doctor of Religious Education
D.Sc.	Doctor of Science
D.V.M.	Doctor of Veterinary Medicine
E.E.	Electrical Engineer
E.M.	Engineer of Mines
E.Met.	Engineer of Metallurgy
G.L.	Graduate in Law
G.N.	Graduate Nurse
G.Ph.	Graduate in Pharmacy
HH.D.	Doctor of Humanities
L.H.D.	Doctor of Humane Letters
Litt.M.	Master of Letters
LL.B.	Bachelor of Laws
LL.D.	Doctor of Laws
LL.M.	Master of Laws
M.A.	Master of Arts
M.Aero.E.	Master of Aeronautical Engineering
M.C.E.	Master of Civil Engineering
M.C.S.	Master of Commercial Science
M.D.	Doctor of Medicine
M.E.	Mechanical Engineer
M.Ed.	Master of Education
Med.Sc.D.	Doctor of Medical Science
M.Eng.	Mining Engineer
M.F.	Master of Forestry
M.F.A.	Master of Fine Arts
M.Int.Med.	Master of Internal Medicine
M.M.	Master of Music
M.Mech.Eng.	Master of Mechanical Engineering
M.Mus.	Master of Music
M.N.	Master of Nursing
M.P.H.	Master of Public Health
M.R.E.	Master of Religious Education
M.R.P.	Master in Regional Planning
M.S.	Master of Science
M.Soc.Wk.	Master of Social Work
M.Surgery	Master in Surgery
M.Th.	Master of Theology
O.D.	Doctor of Optometry
Phar.D.	Doctor of Pharmacy
Ph.B.	Bachelor of Philosophy
Ph.C.	Pharmaceutical Chemist
Ph.D.	Doctor of Philosophy
Ph.G.	Graduate in Pharmacy
Ph.L.	Licentiate in Philosophy
Ph.M.	Master of Philosophy
S.Sc.D.	Doctor of Social Science
S.T.B.	Bachelor of Sacred Theology
S.T.D.	Doctor of Sacred Theology
S.T.M.	Master of Sacred Theology

Colors of Academic Degrees

Agriculture	Maize
Arts and Letters	White
Commerce & Accountancy	Drab
Dentistry	Lilac
Economics	Copper
Education	Light blue
Engineering	Orange
Fine Arts, Architecture	Brown
Forestry	Russet
Humanities	Crimson
Law	Purple
Library Science	Lemon
Medicine	Green
Music	Pink
Oratory	Silver gray
Pharmacy	Olive green
Philosophy	Dark blue
Physical Education	Sage green
Public Health	Salmon pink
Science	Golden yellow
Theology	Scarlet
Veterinary Science	Gray

GEOGRAPHY

Miscellaneous Data

Source: U. S. Geological Survey.

Highest point: Mt. Whitney, Calif.*	14,495 ft.
Lowest point: Death Valley, Calif.*	282 ft. below sea level
Most northern point: Lake of the Woods projection, Minn.	49° 23′ 04.5″ N. lat.
Most southern point: Cape Sable, Fla.	25° 07′ N. lat.
Most eastern point: West Quoddy Head, Maine	66° 57′ W. long.
Most western point: Cape Alava, Wash.	124° 44′ W. long.
Places farthest apart: Point Arena, Calif., to West Quoddy Head, Maine	2,897 mi.
Geographic center: near Lebanon, Smith County, Kans.	39° 50′ N. lat. 98° 35′ W. long.
Northern boundary: Canada and Great Lakes	3,987 mi.
Southern boundary: Mexico	2,013 mi.

* The highest and lowest points in the U. S. are 86 mi. apart.

Mountain Peaks in the U. S. Over 14,000 Feet Above Sea Level

Source: U. S. Geological Survey.

Name of summit	State	Height, ft.	Name of summit	State	Height, ft.
Whitney	California	14,495	San Luis	Colorado	14,146
Elbert	Colorado	14,431	Oxford	Colorado	14,146
Massive	Colorado	14,418	Democrat	Colorado	14,142
Harvard	Colorado	14,414	Lindsey	Colorado	14,125
Rainier	Washington	14,408	Liberty Cap	Washington	14,112
Williamson	California	14,384	Pikes Peak	Colorado	14,110
La Plata	Colorado	14,340	Kit Carson	Colorado	14,100
Blanca	Colorado	14,317	Capitol	Colorado	14,100
Uncompahgre	Colorado	14,301	Windom	Colorado	14,091
Crestone	Colorado	14,291	Eolus (Aeolus)	Colorado	14,086
Lincoln	Colorado	14,284	Columbia	Colorado	14,084
Grays	Colorado	14,274	Snowmass	Colorado	14,077
Torreys	Colorado	14,264	Culebra	Colorado	14,069
Evans	Colorado	14,260	Sunlight	Colorado	14,060
Castle	Colorado	14,259	Split	California	14,058
Longs	Colorado	14,255	Red Cloud	Colorado	14,050
Quandary	Colorado	14,252	Handies	Colorado	14,049
Wilson	Colorado	14,246	Bierstadt	Colorado	14,046
White	California	14,246	Humboldt	Colorado	14,044
Antero	Colorado	14,245	Langley	California	14,042
North Palisade	California	14,242	Middle Palisade	California	14,040
Cameron	Colorado	14,238	Little Bear	Colorado	14,040
Shavano	Colorado	14,225	Sherman	Colorado	14,037
Princeton	Colorado	14,197	Stewart	Colorado	14,032
Yale	Colorado	14,194	Muir	California	14,025
Creston Needle	Colorado	14,191	Tyndall	California	14,025
Russell	California	14,190	Sunshine	Colorado	14,018
Bross	Colorado	14,169	Wetterhorn	Colorado	14,017
Sill	California	14,162	Wilson	Colorado	14,017
Shasta	California	14,162	Barnard	California	14,003
El Diente	Colorado	14,159	Pyramid	Colorado	14,000
Maroon	Colorado	14,158	Grizzly	Colorado	14,000
Belford	Colorado	14,152	Tabeguache	Colorado	14,000
Point Success	Washington	14,150	North Maroon	Colorado	14,000
Sneffels	Colorado	14,150			

Highest, Lowest, and Average Altitudes in the United States

Source: U. S. Geological Survey.

State	Average elevation, ft.	Highest point	Elevation, ft.	Lowest point	Elevation, ft.
Alabama	500	Cheaha Mountain	2,407	Gulf of Mexico	Sea level
Arizona	4,100	Humphreys Peak	12,670	Colorado River	100
Arkansas	650	Blue Mountain & Magazine Mountain	2,800	Ouachita River	55
California	2,900	Mount Whitney	14,495	Death Valley	282*
Colorado	6,800	Mount Elbert	14,431	Arkansas River	3,350
Connecticut	500	N. Bdy.-Mt. Frissell	2,380	Long Island Sound	Sea level
Delaware	60	Centerville	440	Atlantic Ocean	Sea level
D. C.	150	Tenleytown	420	Potomac River	Sea level
Florida	100	Sec. 30, T6N, R20W	345	Atlantic Ocean	Sea level
Georgia	600	Brasstown Bald	4,784	Atlantic Ocean	Sea level
Idaho	5,000	Borah Peak	12,655	Snake River	720
Illinois	600	Charles Mound	1,241	Mississippi River	279
Indiana	700	Greensfork Township	1,240	Ohio River	320
Iowa	1,100	In Osceola County	1,675	Mississippi River	480
Kansas	2,000	In T15S R43W	4,135	Verdigris River	700
Kentucky	750	Big Black Mountain	4,150	Mississippi River	257
Louisiana	100	Driskill Mountain	535	New Orleans	5*
Maine	600	Mount Katahdin	5,268	Atlantic Ocean	Sea level
Maryland	350	Backbone Mountain	3,360	Atlantic Ocean	Sea level
Massachusetts	500	Mount Greylock	3,491	Atlantic Ocean	Sea level
Michigan	900	Porcupine Mountains	2,023	Lake Erie	572
Minnesota	1,200	Misquah Hills	2,230	Lake Superior	602
Mississippi	300	Woodall Mountain	806	Gulf of Mexico	Sea level
Missouri	800	Taum Sauk Mountain	1,772	St. Francis River	230
Montana	3,400	Granite Peak	12,850	Kootenai River	1,800
Nebraska	2,600	Epworth Township	5,340	Southeast corner of State	840
Nevada	5,500	Boundary Peak, White Mountains	13,145	Colorado River	470
New Hampshire	1,000	Mount Washington	6,288	Atlantic Ocean	Sea level
New Jersey	250	High Point	1,801	Atlantic Ocean	Sea level
New Mexico	5,700	Wheeler Peak	13,160	Red Bluff Reservoir	2,817
New York	1,000	Mount Marcy	5,344	Atlantic Ocean	Sea level
North Carolina	700	Mount Mitchell	6,684	Atlantic Ocean	Sea level
North Dakota	1,900	Black Butte	3,468	Red River	750
Ohio	850	Campbell Hill	1,550	Ohio River	433
Oklahoma	1,300	Black Mesa	4,978	Red River	300
Oregon	3,300	Mount Hood	11,245	Pacific Ocean	Sea level
Pennsylvania	500	Mt. Davis, Negro Mountains	3,213	Delaware River	Sea level
Rhode Island	200	Jerimoth Hill	812	Atlantic Ocean	Sea level
South Carolina	350	Sassafras Mountain	3,560	Atlantic Ocean	Sea level
South Dakota	2,200	Harney Peak	7,242	Big Stone Lake	962
Tennessee	900	Clingmans Dome	6,642	Mississippi River	182
Texas	1,700	Guadalupe Peak	8,751	Gulf of Mexico	Sea level
Utah	6,100	Kings Peak	13,498	Beaverdam Creek	2,000
Vermont	1,000	Mount Mansfield	4,393	Lake Champlain	95
Virginia	950	Mount Rogers	5,720	Atlantic Ocean	Sea level
Washington	1,700	Mount Rainier	14,408	Pacific Ocean	Sea level
West Virginia	1,500	Spruce Knob	4,860	Potomac River	240
Wisconsin	1,050	Sugarbush Hill	1,951	Lake Michigan	581
Wyoming	6,700	Gannett Peak	13,785	Belle Fourche River	3,100

* Below sea level.

Forest Resources of the United States

Source: U. S. Forest Service.

Nearly 1/3 of the U. S. is forest land including over 800 different kinds of trees. Commercial areas include land capable of producing timber of commercial quantity and quality, and available now or prospectively for such use. Almost all the old-growth forest is in the West. Noncommercial areas include alpine, semidesert, chaparral and other forest types of low timber productivity, though much of it is important for watershed protection.

U. S. Forest Land in Acres, 1950

Old growth	44,307,000
Second-growth saw timber	154,597,000
Pole timber	104,799,000
Seedling and sapling area	81,076,000
Poorly stocked and denuded area	74,762,000
Total, commercial forest land	459,541,000
Noncommercial forest	162,525,000
Total, all forest land	622,066,000

Rivers of the U. S.

Source: U. S. Geological Survey.

(300 or more miles long)

ALABAMA (315 mi.): From junction of Tallapoosa R. and Coosa R. in Alabama to junction with Tombigbee R. to form Mobile R. and Tensaw R.

ALLEGHENY (325 mi.): From Potter Co. in Pennsylvania to junction with Monongahela R. at Pittsburgh to form Ohio R.

ARKANSAS (1,450 mi.): From Lake Co. in Colorado to Mississippi R. in Arkansas.

BIG BLACK (330 mi.): From Webster Co. in Mississippi to Mississippi R.

BIG HORN (336 mi.): From junction of Popo Agie R. and Wind R. in Wyoming to Yellowstone R. in Montana.

BRAZOS (870 mi.): From junction of Salt Fork and Clear Fork in Texas to Gulf of Mexico.

CANADIAN (906 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CEDAR (329 mi.): From south central Minnesota to Iowa R. in Iowa.

CHATTAHOOCHEE (410 mi.): From Towns Co. in Georgia to junction with Flint R. to form Apalachicola R.

CIMARRON (600 mi.): From Colfax Co. in New Mexico to Arkansas R. in Okla.

CLARK FORK (c. 300 mi.): From Silver Bow Co. in Montana to Pend Oreille Lake in Idaho.

COLORADO (1,450 mi.): From Grand Co. in Colorado to Gulf of California in Mexico.

COLORADO (840 mi.): From Dawson Co. in Texas to Matagorda Bay.

COLUMBIA (1,270 mi.): From Columbia Lake in British Columbia to Pacific Ocean between Oregon and Washington.

CONNECTICUT (407 mi.): From Connecticut Lakes in New Hampshire to Long Island Sound in Connecticut.

CUMBERLAND (687 mi.): From junction of forks in Harlan Co. in Kentucky to Ohio R.

DAKOTA (Sometimes called JAMES) (710 mi.): From Wells Co. in North Dakota to Missouri R. in South Dakota.

DES MOINES (327 mi.): From junction of forks in Humboldt Co. in Iowa to Mississippi R.

GILA (630 mi.): From southwest New Mexico to Colorado R. in Arizona.

GREEN (360 mi.): From Lincoln Co. in Kentucky to Ohio R. in Indiana.

GREEN (730 mi.): From Sublette Co. in Wyoming to Colorado R. in Utah.

HUDSON (306 mi.): From Essex Co. in New York to Upper New York Bay between New York and New Jersey.

JAMES (340 mi.): From junction of Jackson R. and Cowpasture R. in Virginia to Chesapeake Bay.

LITTLE COLORADO (300 mi.): From Apache Co. in Arizona to Colorado R.

LITTLE MISSOURI (560 mi.): From northeast Wyoming to Missouri R. in North Dakota.

MILK (625 mi.): From Glacier Co. in Montana to Missouri R.

MINNESOTA (332 mi.): From Big Stone Lake between Minnesota and South Dakota to Mississippi R. at St. Paul.

MISSISSIPPI (2,470 mi.): From Lake Itasca in Minn. to Gulf of Mexico in La.

MISSOURI (2,475 mi.): From junction of Jefferson R., Madison R., and Gallatin R. in Montana to Mississippi R. near St. Louis.

NEOSHO (460 mi.): From Morris Co. in Kansas to Arkansas R. in Oklahoma.

NIOBRARA (431 mi.): From Niobrara Co. in Wyoming to Missouri R. in Nebraska.

NORTH CANADIAN (760 mi.): From Union Co. in New Mexico to Canadian R. in Oklahoma.

NORTH PLATTE (618 mi.): From Jackson Co. in Colorado to junction with So. Platte R. in Nebraska to form Platte R.

NUECES (338 mi.): From near Edwards-Real Co. border in Texas to Nueces Bay.

OHIO (981 mi.): From junction of Allegheny R. and Monongahela R. at Pittsburgh to Mississippi R. between Illinois and Kentucky.

OSAGE (500 mi.): From junction of Elm Creek and Onion Creek in Kansas to Missouri R. in Missouri.

OUACHITA (605 mi.): From Polk Co. in Arkansas to Black R. in Louisiana.

PEARL (490 mi.): From Neshoba Co. in Mississippi to Gulf of Mexico between Mississippi and Louisiana.

PECOS (735 mi.): From Mora Co. in New Mexico to Rio Grande in Texas.

PLATTE (310 mi.): From junction of North Platte R. and South Platte R. in Nebraska to Missouri below Omaha.

PLATTE (c. 300 mi.): From Union Co in Iowa to Missouri R. in Missouri.

POWDER (375 mi.): From junction of forks in Johnson Co. in Wyoming to Yellowstone R. in Montana.

RED (1,018 mi.): From junction of forks in Tillman Co. in Oklahoma to Mississippi R. in Louisiana.

RED (Sometimes called RED RIVER OF THE NORTH) (545 mi.): From junction of Otter Tail R. and Bois de Sioux R. in Minnesota to Lake Winnipeg in Manitoba

REPUBLICAN (445 mi.): From eastern Colorado to junction with Smoky Hill R. in Kansas to form Kansas R.

RIO GRANDE (1,800 mi.): From San Juan Co. in Colorado to Gulf of Mexico between Texas and Mexico.

ROANOKE (380 mi.): From junction of forks in Montgomery Co. in Virginia to Albemarle Sound in North Carolina.

ROCK (300 mi.): From Washington Co. in Wisconsin to Mississippi R. in Illinois.

SABINE (380 mi.): From junction of forks in Hunt Co. in Texas to Sabine Lake between Texas and Louisiana.

SACRAMENTO (382 mi.): From Siskiyou Co. in California to Suisun Bay.

SAINT FRANCIS (425 mi.): From Iron Co. in Missouri to Mississippi R. in Arkansas.

SALMON (420 mi.): From Custer Co. in Idaho to Snake R.

SAN JOAQUIN (350 mi.): From junction of forks in Madera Co. in California to Sacramento R.

SAN JUAN (360 mi.): From Archuleta Co. in Colorado to Colorado R. in Utah.

SAVANNAH (314 mi.): From junction of Tugaloo R. and Seneca R. in South Carolina to Atlantic Ocean between Georgia and South Carolina.

SMOKY HILL (540 mi.): From Cheyenne Co. in Colorado to junction with Republican R. in Kansas to form Kansas R.

SNAKE (1,038 mi.): From Yellowstone National Park in Wyoming to Columbia R. in Washington.

SOUTH PLATTE (424 mi.): From Park Co. in Colorado to junction with North Platte R. in Nebraska to form Platte R.

SUSQUEHANNA (444 mi.): From Otsego Co. in New York to Chesapeake Bay in Maryland.

TALLAHATCHIE (301 mi.): From Tippah Co. in Mississippi to junction with Yalobusha R. to form Yazoo R.

TENNESSEE (652 mi.): From junction of Holston R. and French Broad R. near Knoxville to Ohio R. in Kentucky.

TOMBIGBEE (409 mi.): From junction of forks near Amory, Mississippi, to junction with Alabama R. in Alabama to form Mobile R. and Tensaw R.

TRINITY (360): From junction of forks in Kaufman Co. in Texas to Galveston Bay.

WABASH (475 mi.): From Darke Co. in Ohio to Ohio R. between Illinois and Indiana.

WASHITA (500 mi.): From Hemphill Co. in Texas to Red R. in Oklahoma.

WHITE (690 mi.): From Madison Co. in Arkansas to Mississippi R.

WISCONSIN (430 mi.): From Vilas Co. in Wisconsin to Mississippi R.

YELLOWSTONE (671 mi.): From Park Co. in Wyoming to Missouri R. in North Dakota.

Coastline of the United States

Source: U. S. Coast and Geodetic Survey.

State	Lengths in statute miles		
	General coastline*	Tidal shoreline, general†	Tidal shoreline, detailed‡
Maine	228	676	3,478
New Hampshire	13	14	131
Massachusetts	192	453	1,519
Rhode Island	40	156	384
Connecticut	...	96	618
New York	127	470	1,850
New Jersey	130	398	1,792
Pennsylvania	...	...	89
Delaware	28	79	381
Maryland	31	452	3,190
Virginia	112	567	3,315
North Carolina	301	1,030	3,375
South Carolina	187	758	2,876
Georgia	100	603	2,344
Florida (Atlantic)	399	618	3,035
Total Atlantic coast	1,888	6,370	28,377
Florida (Gulf)	798	1,658	5,391
Alabama	53	199	607
Mississippi	44	155	359
Louisiana	397	985	7,721
Texas	367	1,100	3,359
Total Gulf coast	1,659	4,097	17,437
California	840	1,190	3,427
Oregon	296	312	1,410
Washington	157	908	3,026
Total Pacific coast	1,293	2,410	7,863
Total U. S.	4,840	12,877	53,677

* Figures are lengths of general outline of seacoast. Measurements made with unit measure of 30 minutes of latitude on charts as near scale of 1:1,200,000 as possible. Shoreline of bays and sounds is included to point where they narrow to width of unit measure, and distance across at such point is included. † Measurements made with unit measure of 3 statute miles on charts of 1:200,000 and 1:400,000 scale when available. Shoreline of bays, sounds and other bodies of water included to point where they narrow to width of 3 statute miles, and distance across at such point is included. ‡ Figures obtained in 1939–40 with recording measure on largest scale maps and charts then available. Shoreline of bays, sounds and other bodies of water included to head of tide-water, or to point where they narrow to width of 100 feet.

U. S. Water Area*

Source: U. S. Bureau of the Census.

	Sq. mi.
Atlantic Ocean	2,298
Chesapeake Bay	3,237
Delaware Bay	665
Erie, Lake	5,002
Georgia and Juan de Fuca, Straits of	1,610
Huron, Lake	8,975
Long Island Sound	1,299
Mexico, Gulf of	3,837
Michigan, Lake	22,178
New York Harbor	92
Ontario, Lake	3,033
Pacific Ocean	343
Puget Sound	561
St. Clair, Lake	116
Superior, Lake	21,118
Total	74,364

* Other than inland water.

HEADLINE HISTORY OF OUR TIMES

★

A Quick Look Backward

Memories of a Generation

Just for the sake of contrast with what was to come later, let's take a quick look at that fabulous era—the late 1920s.

It was an era of champions. That young man Lindbergh must be crazy, we thought, when he took off to fly the Atlantic alone. But what a thrill went around the world when *The Spirit of St. Louis* circled into the searchlights of Paris!

There were sports champs we'll never forget. Remember how surprised we were when Gene Tunney—later to become a Shakespearean scholar—knocked the mighty Jack Dempsey off his throne? And all the hoopla when Gertrude Ederle swam the English Channel? Bobby Jones ruled the golf links here and abroad, Big Bill Tilden ruled the tennis courts and Babe Ruth was crowned Sultan of Swat.

Speaking of golf, what ever became of those miniature courses that in the late 20s messed up the landscape from one end of the land to the other? And who plays mah-jongg any more?

There were champs even in the underworld. Al Capone finally got behind the bars, but only on an income-tax charge. And Outlaw John Dillinger was so famous they put songs about him on phonograph records.

Of course, that wondrous thing known as the Noble Experiment helped the underworld to prosper. And millions of us became lawbreakers, mixing dreadful concoctions out of raw alcohol and flavoring drops. Dress suits had big pockets in the tails to accommodate hip flasks.

Radio was just coming into its own in a big way. Sales shot up from $425 million in 1927 to $842 million in 1929. In the bookstores, the American Babbitt was paying out good money for books that kidded the daylights out of him—books by such great champions of yesteryear as Sinclair Lewis, H. L. Mencken and F. Scott Fitzgerald.

Wasn't Everybody Happy?

Oh, were we a Good-Time Charley nation! And why not? Everybody was going to get rich. Just buy a lot in Florida, hold it a week, and sell it for twice as much. Simple! Or, get in on the Stock Exchange bonanza. Blindfold yourself and pick a stock—any stock—in the spring of 1928, and watch the profits roll in. By the autumn of 1929 you had doubled your money, or tripled it, and in some cases quintupled it.

Paper profits, of course. And you had bought the stocks on margin, of course. But what matter? Prosperity was here forever. Two chickens in every pot. Two cars in every garage. Everybody felt great. Fantastic era. Crazy era.

Came the 24th day of October, 1929. An era blew up in our faces.

Just as the boom had been the champion of all time, so was the crash. Prosperity, instead of being permanent, was soon to be described as "just around the corner." And that prediction was a champion in its way; few have been worse.

The long queues that used to form at movie theaters vanished—and reappeared at banks. Get your money out before it folded! Wall Street brokers were jumping out of 37th-story windows. Apple-sellers were standing despondently on the street corners. Even our songs reflected the misery: "Brother, Can You Spare a Dime?"

The New Deal

Panic lay heavy on the land when Franklin Delano Roosevelt took office.

"The only thing we have to fear is fear itself," the new President told the nation.

Then came an alphabetical torrent of governmental agencies to try to pull us up by the bootstraps. Can you remember now what these initials stood for: NRA, CCC, WPA, PWA?

Things happened fast. First we got 3.2 beer . . . we recognized Soviet Russia . . . the end of prohibition put the rumrunners out of business.

In this early Roosevelt era, we went to see a movie called *It Happened One Night* and we read a novel named *Lamb in His Bosom*. We became enthralled by the greatest crime story of the century—the trial and execution of Bruno Richard Hauptmann for the kidnaping and murder of Charles A. Lindbergh's son.

A pleasanter fascination was the birth of quintuplets to the Dionnes in Canada. Those 5 little girls stared at us from Scripps-Howard newspapers and breakfast-food boxes until, eventually, their novelty wore off and we quietly forgot about them.

While we were absorbed in our Depression troubles, we but dimly realized how sinister were the storm clouds building up in the rest of the world. Grim dress rehearsals for World War II were under production in Spain, Ethiopia and Manchuria. Hitler, Mussolini and the militarists of Japan were reveling in dreams of grandeur.

Our fancy was caught, our emotions were stirred, by the abdication of a King of England because he loved an American divorcee, Wallis Simpson. A Calypso record sang to us: "'Twas love and love alone caused King Edward to leave the throne."

Much more important—although how many of us knew it at the time?—was a British umbrella. The umbrella of Prime Minister Chamberlain. He took it to Munich, where he sacrificed Czechoslovakia to Hitler. He brought it home, proclaiming "Peace in our time!" Another wrong prediction.

Hitler and War

One year later, Nazi Germany plunged the world into war. Many of us in the U. S. were honest isolationists. We wanted to have no part in the war. It seemed a "phony" war, anyway—until Hitler drove the Panzer knife into France.

We had troubles aplenty at home. Automobile workers in Michigan devised a new type of labor warfare—the sit-down strike. They just stayed in the factory.

President Roosevelt tried a new technique, too. Let's pack the Supreme Court, said he, with 15 instead of 9 members. Then the elderly justices couldn't thwart the New Deal. He did not get his idea across, and blood pressure was raised all over the place.

People calmed down and grew misty-eyed when Kate Smith sang "God Bless America!" There was a play that opened in 1939 and it did right well. Ran until 1947, with 3,224 performances. It was *Life With Father,* which beat the previous all-time record set by *Tobacco Road,* with a mere 3,182 performances.

Radio was a big boy by now, and *Information Please,* which started in 1938, proved that millions of listeners liked a high-brow quiz program.

For soothing reading in these parlous times, we went all the way back to the Civil War and read *Gone With the Wind.* But we didn't blink the Depression entirely, because we also read *The Grapes of Wrath* about the Okies.

The lightning burst out of those storm clouds that had been building abroad. Japan must be crazy, we thought, on that unbelievable Sunday afternoon of Pearl Harbor. Little did we know, that afternoon, how many of our young men would die in places they never before had heard of—Kwajalein, Anzio, Okinawa, Bizerte.

For the whole first year, the news was black. After what seemed to be a long, long time there came the turning points—the Battle of the Coral Sea, the Battle of Stalingrad, the awful suspense of the Normandy invasion.

At home we couldn't drive very far on an "A" gasoline ration card. Nor could we eat too much meat on a red ration coupon. When a store got a few nylon stockings, women stood in lines a block long. Our cigarettes disappeared toward the end of the war, and nobody yet has figured out where they went.

You couldn't buy aluminum porch furniture; but then you shouldn't have been sitting around, anyway. The nation was hard at work, with a unity of spirit that seems wonderful now that we look back.

We began to read war books, starting with Ernest Hemingway's *For Whom the Bell Tolls.* For lighter diversion we saw Bing Crosby in *Going My Way.*

"A massive cerebral hemorrhage." That was what the physicians announced on that spring day of 1945 when Franklin Delano Roosevelt died. The war was not yet quite won. Great decisions were to be made, including the atomic bombing of Japan. Into the Presidency was pitched a man from Missouri, who was at first awed and bewildered—Harry S. Truman.

We looked to the United Nations to usher in an era of everlasting peace. We were blissful, maybe naive. Disillusion was to come all too soon. We found ourselves shipping billions of dollars across the Atlantic to shore up the dikes of European democracy against communism.

Things weren't too peaceful at home, either. Rarely had labor and management fought on so vast a scale. Involved in strikes in 1946 were 4½ million persons. Truman quarreled with a Republican Congress. Wives quarreled with husbands: 11,000 divorces set a record for Reno in 1946.

Postwar Turbulence

Prices shot up. Eggs were $1 a dozen. In this turbulent, uncertain era, no wonder the nonfiction best-seller was Joshua Loth Liebman's *Peace of Mind.* Also doing well was Dale Carnegie with his book *How to Stop Worrying and Start Living.* Among the movies we liked was one about war veterans—*The Best Years of Our Lives.* And one about a sot—*The Lost Weekend.*

The greatest psychological mystery of our time unfolded before our astonished eyes. Whittaker Chambers, an editor of *Time*, accused his erstwhile friend, Alger Hiss, of having slipped him government secrets for Russia in the 1930s when Hiss held a high position in the State Department. In the end, penitentiary doors closed on Hiss, convicted of perjury.

A Red scare already had been sweeping the country. Back in 1938, Representative Martin Dies had thrown suspicion on little Shirley Temple. Maybe she was a Red! Now it was to become a favorite sport for eager-eyed legislators to hunt for Communists in government, schools, movies, and even the clergy.

Bigger Red scares were developing abroad. A 14-word White House announcement broke the news that Russia had exploded an atomic bomb. The "secret" was no longer ours.

"No Man's Land" Again

Nine months later, the Communists started a shooting war in Korea. We and the United Nations shot back. It was like a nightmare repeating itself when the boys went once more to the battlefield.

As the tides of war shifted, gloom and joy alternately seized the nation. When Truman fired MacArthur, people wept as the General said: "I now close my military career and just fade away . . ."

Amid all the turmoil, we found time to get excited about radio give-away shows. The $64 question actually was just a pup. You could get a washing machine, or maybe a trip around the world, if you answered the question: "Who was buried in Grant's Tomb?"

These were the days of the new nylon shirts, some of which popped their buttons.

Television was coming up in the same big way that radio did back in the 1920s. We could look at plunging necklines. We could look at the ugly mugs of the racketeers whom Senator Kefauver brought into our parlor when he was televising the underworld.

The year 1952 was a turning point in several respects.

By now we had recovered from our delicious fright over the Flying Saucers—those eerie aeronautical apparitions that sped through the night skies, undoubtedly piloted either by "teensy little mens" from Mars or else by "gwate big mens" from Russia.

The women were changing their hairdo. The big argument was which looked funnier the horsetail or the poodle.

Chlorophyll—life-giving, breath-killing chlorophyll—was creeping into toothpaste, chewing gum, dog food.

The Big Change

Politically speaking, 1952 was the end of an era. For almost 20 years the Democrats had reigned. Now the New Deal-Fair Deal had its back to the wall. The word had got around that there was "influence" reaching into high places in Washington—tales of mink coats and deep freezers. The Republican chant went across the land: "It's time for a change!"

Change we did. Into the White House came a General.

End of an era! Looking back on those two decades of depression and war, how better to characterize the era than in the famous phrase of Britain's Winston Churchill: "Blood, toil, tears and sweat."

1917

Mar. 8—Russian Revolution begins.

Mar. 15—Tsar Nicholas II abdicates.

Apr. 6—U. S. enters World War I.

Apr. 16—Lenin and other exiled Bolshevik leaders arrive in Petrograd from Switzerland; were allowed to pass through Germany in sealed railroad car.

Nov. 6-7—Bolsheviks overthrow Kerensky, seize power.

1918

Jan. 8—Wilson's 14-point address to Congress calls for self-determination, removal of economic barriers, League of Nations.

Mar. 3—Russia makes separate treaty with Central Powers at Brest-Litovsk.

July 16—Tsar Nicholas II and family shot.

Nov. 11—World War I ends.

1919

Mar. 2—3rd International founded.

June 28—Versailles Treaty signed.

Aug. 11—Germany becomes republic as Weimar Constitution is promulgated.

1920

Jan. 10—League of Nations officially inaugurated as Versailles Treaty goes into effect.

Jan. 16—1st League Council meeting in Paris. Permanent members: England, France, Italy, Japan. (Germany made

permanent member 1926 upon admission to League; Russia, 1934.)

Jan. 16—Prohibition goes into effect.

Mar. 13–17—Kapp Putsch by monarchists results in brief seizure of Berlin government buildings; collapses as result of general strike.

Mar. 19—Senate finally rejects Treaty of Versailles because of League of Nations proviso.

Apr. 25—War between Russia and Poland begins. Treaty of Riga, Mar. 18, 1921, establishes Polish-Russian border.

May 19—Persia (now Iran) presents 1st dispute to League: demands Russia get out of Azerbaijan. Russia does.

Aug. 26—Woman suffrage amendment ratified.

1921

Mar. 8—Allies occupy Düsseldorf, Duisburg, Ruhrort because of reparations default; Germany accepts ultimatum, finances reparations May 11.

Mar. 17—New Economic Policy (NEP) in Russia permits private enterprise on small scale; small private farms, limited hired labor and leases permitted 1922.

1922

Feb. 6—Washington Conference guarantees China's integrity in 9-Power Treaty; establishes naval ratios of 5:5:3 for U. S., Britain and Japan.

Apr. 16—Treaty of Rapallo provides for economic co-operation between Germany and Russia.

June 15—1st meeting of Permanent Court of International Justice (World Court).

Sept. 21—Fordney-McCumber Tariff sets highest rates in American history.

Oct. 27—Mussolini marches on Rome.

1923

Jan. 11—French and Belgians occupy Ruhr because of reparations default.

Aug. 31—Italy, blaming Greece for death of Italian on Greek border, seizes Corfu; League intervenes; Italy withdraws; Greece to pay indemnity.

Nov. 8–9—Munich beer hall putsch led by Hitler put down; Hitler sentenced to 5 years, serves less than 1; writes *Mein Kampf* in jail.

Nov. 20—German mark falls to 4.2 trillion to dollar.

1924

Jan. 21—Lenin dies; struggle for power begins between Stalin and Trotsky.

Apr. 9—Dawes Plan reorganizes Reichsbank, revises reparations and lends Germany gold to back up currency.

May 26—Immigration quotas set: annual immigrants from each nation to be 2% of persons of that nationality residing in U. S. in 1890.

July 21—Leopold and Loeb sentenced to life imprisonment for kidnap-slaying of 14-year-old boy.

1925

Apr. 26—Hindenburg elected President of Germany by minority vote.

July 10–21—Scopes evolution trial held in Dayton, Tenn.

Oct.—Locarno Conference held to insure peace, preserve boundaries.

1927

May 20–21—Lindbergh flies solo across Atlantic.

Aug. 23—Sacco and Vanzetti executed.

Nov.—Trotsky expelled from Communist party.

1928

Aug. 27—Kellogg-Briand Pact signed; 15 nations (eventually 62) outlaw war; ratified by Senate Jan. 15, 1929.

Oct. 1—Russia's 1st 5-Year Plan begins.

1929

June 7—Young Plan establishes Bank for International Settlements; reduces reparations.

Oct. 24—Worst stock crash wipes out thousands of accounts.

1930

Apr. 22—London naval pact signed by U. S., Britain, France, Italy, Japan; Japan benefits by revision of naval ratio.

1931

Apr. 14—Alfonso XIII quits Spain; Alcalá Zamora becomes President of provisional republic.

May 11—Austrian Credit Anstalt fails; 6,000,000 unemployed by 1932.

Sept. 18–19—Explosion on Manchurian railway serves as pretext for Japan to begin occupation of Manchuria.

1932

Jan. 7—Stimson Doctrine: U. S. will not recognize gains achieved by armed force; recognition of Manchukuo withheld.

Jan. 22—Reconstruction Finance Corporation (RFC) established.

Jan. 28—Japan begins invasion of international settlement of Shanghai.

June 7—Bonus March on Washington.

July 31—Nazis elect 230 to Reichstag, Socialists 133, Centrists 97, Communists 89.

Aug. 13—Hitler refuses Vice-Chancellorship; demands all or nothing.

Oct. 31—Hoover warns "grass will grow in streets" under New Deal.

Nov. 6—German election fails to break deadlock; Nazis lose 2,000,000 votes.

1933

Jan. 30—Hitler made Chancellor of Germany by Hindenburg.

Feb. 15—FDR misses assassination at Miami; Mayor Cermak of Chicago fatally wounded.

Feb. 27—German Reichstag building burns; Communists accused.

Mar. 5—Reichstag elections give Nazis and Nationalist allies 52% of vote.

Mar. 6—Roosevelt proclaims bank holiday; embargoes gold.

Mar. 12—FDR's first "Fireside Chat."

Mar. 23—Reichstag gives Hitler blanket powers for 4 years; 94 Social Democrats opposed; many Social Democrats and all Communists under arrest or in hiding.

Mar. 27—Japan gives notice of quitting League (effective 1935).

Mar. 28—Nazis begins systematic boycott of Jewish businessmen, doctors, lawyers.

Mar. 31—Civilian Conservation Corps (CCC) to relieve unemployment and aid reforestation and flood control.

Apr. 19—U. S. goes off gold standard.

May 18—Tennessee Valley Authority (TVA) established.

June 12–July 27—London Economic Conference attempts to stabilize currencies; defeated by FDR's opposition.

June 16—National Industrial Recovery Act (NIRA) signed. Declared unconstitutional May 27, 1935.

Oct. 14—Hitler's Germany gives notice of quitting League (effective 1935).

Oct. 17—Einstein arrives in U. S. from Germany.

Nov. 12—92% of all voters cast ballots for Nazis in 1-party election; 3,000,000 invalid ballots register opposition.

Nov. 16—U. S. and Russia resume full relations at 11:50 P.M. EST.

Dec. 5—Prohibition ends in U. S.

1934

Jan. 10—Van der Lubbe, Dutch Communist, beheaded for Reichstag fire.

Jan. 31—Gold value of U. S. dollar cut to $.5906.

Mar. 24—FDR signs Tydings-McDuffie Act giving Philippines independence on July 4, 1946.

May 28—Dionne quintuplets born.

June 6—Securities and Exchange Act signed; regulates licensing of stock exchanges and speculative practices.

June 12—Reciprocal Trade Agreements Act signed; allows President limited trade-agreement authority without need for Senatorial approval.

June 19—Federal Communications Commission (FCC) created to regulate interstate telegraph, telephone, cable and radio.

June 28—Federal Housing Administration (FHA) to aid in modernizing homes and in new construction.

June 30—Hitler "purge" kills Ernst Roehm and other Nazi leaders.

Aug. 2—Hindenburg dies; Hitler becomes absolute dictator of Germany.

1935

Jan. 4—Roosevelt asks 3.5 million jobs in public works (PWA) to end dole.

Jan. 13—Saar plebiscite 90% for reunion with Germany; Saar returned to Germany Mar. 1.

Mar. 6—22.375 million on relief rolls.

Mar. 16—Hitler defies Versailles Treaty by re-establishing universal military training in Germany.

July 5—Wagner-Connery Act establishes National Labor Relations Board (NLRB). Upheld by Supreme Court Apr. 12, 1937.

Aug. 14—Social Security Act signed; establishes old-age benefits and unemployment insurance. Upheld by Supreme Court May 24, 1937.

Aug. 20—3rd International decides Russia will side with democracies against Fascist states.

Aug. 31—Neutrality Act, resulting from Ethiopian crisis, requires President to ban arms sales to nations he declares at war.

Sept. 10—Huey Long dies from being shot Sept. 8.

Sept. 15—Nuremberg laws deprive Jews of citizenship and bar intermarriage.

Oct. 3—Italy invades Ethiopia.

Oct. 7—League of Nations condemns Italy.

Nov. 9—Committee for Industrial Organization, headed by John L. Lewis, organized within AFL; expelled in 1937; becomes Congress of Industrial Organizations (CIO) in Nov. 1938.

Nov. 18—League economic and financial sanctions against Italy go into effect. (Embargo on oil never applied.)

1936

Jan. 15—Japan withdraws from naval conference at London; U. S., France, Britain sign pact Mar. 25.

Jan. 20—George V dies; Prince of Wales becomes Edward VIII.

Feb. 16—Spanish Popular Front (republicans and leftists) wins parliamentary elections.

Mar. 7—Hitler sends German troops into Rhineland, defying Versailles Treaty; denounces Locarno Pact.

Apr. 3—Bruno Richard Hauptmann electrocuted for kidnap-slaying (Mar. 1, 1932) of Lindbergh baby.

May 9—Ethiopia annexed to Italy.

July 17—Spanish civil war begins; troops led by Gen. Francisco Franco revolt in Spanish Morocco; uprisings follow all over Spain.

Aug. 19–23—Zinoviev and Kamenev executed in Russia as collaborators with Trotsky and Nazi secret police.

Oct. 1—Franco named Chief of State by rebels; establishes capital at Burgos.

Oct. 27—Rome-Berlin Axis formed.

Nov. 18—Italy and Germany recognize Franco regime in Spain.

Nov. 25—Japan signs anti-Comintern treaty with Germany; Italy adheres Nov. 6, 1937.

Dec. 1–23—Buenos Aires conference: 21 American republics pledge to consult if peace is imperiled; no nation to interfere with another's domestic affairs.

Dec. 11—Edward VIII abdicates; his brother becomes George VI.

1937

Jan. 20—FDR second inaugural sees "one-third of the nation ill-housed, ill-clad, ill-nourished."

Feb. 2—Sit-down strikers at Flint, Mich., defy court order to evacuate.

Feb. 5—FDR asks power to enlarge Supreme Court to maximum of 15 Justices; plan defeated by Senate July 22.

May 1—Neutrality Act further limits sales to belligerents.

May 6—German zeppelin *Hindenburg* burns at Lakehurst, N. J.

May 28—Chamberlain succeeds Baldwin as British Prime Minister.

June 3—Duke of Windsor (former Edward VIII of Britain) weds Wallis Warfield Simpson.

June 12—Marshal Tukhachevsky and 7 generals executed in Russia for espionage and high treason.

July 2—Amelia Earhart Putnam missing in Pacific in round-the-world flight.

July 7—Japan begins undeclared war on China; fighting continues throughout World War II until fall of Japan.

Oct. 5—FDR delivers speech calling for "quarantine" of aggressors.

Nov. 29—Britain and France agree to give Hitler colonies in exchange for peace.

Dec. 11—Italy gives notice of quitting League (effective 1939).

1938

Feb. 16—New Agricultural Adjustment Act signed; establishes parity payments, ever-normal granaries, crop insurance.

Feb. 20—Eden resigns as British Foreign Minister; charges Chamberlain "seeks to buy peace."

Mar. 12—Nazis seize Austrian government; Schuschnigg ousted.

June 25—Fair Labor Standards Act provides 40¢ minimum wage and 40-hour week, to be achieved within 8 and 3 years, respectively.

July 18—Douglas Corrigan lands in Dublin in "wrong way" flight.

Sept. 29–30—Britain, France, Italy, Germany in parley at Munich agree to dismemberment of Czechoslovakia; Chamberlain returns to London with "peace in our time."

Oct. 30—"Attack from Mars" radio program by Orson Welles causes panic.

Nov. 13—Mother Cabrini first American to be beatified by Vatican.

Nov. 13—Jews herded into camps; fined $400,000,000 because of Vom Rath assassination.

1939

Feb. 27—Sit-down strikes outlawed by U. S. Supreme Court.

Mar. 15—Hitler enters Prague.

Mar. 28—Madrid surrenders to Franco Forces.

Apr. 1—Civil war ends in Spain; U. S. recognizes Franco government.

Apr. 28—Hitler rebuffs FDR's peace plea in Polish quarrel.

Apr. 30—New York World's Fair opens.

May 3—Litvinov retires as Commissar for Foreign Affairs, marking end of Western orientation in Soviet diplomacy; Vyacheslav M. Molotov succeeds him.

May 5—Poland refuses to yield Danzig to Hitler; offers to negotiate.

Aug. 24—Germany and Russia sign 10-year nonaggression pact.

Aug. 27—Hitler demands Danzig and Corridor; agrees Aug. 29 to negotiate; asks for Polish delegation; considers plan rejected Aug. 31 when no Polish delegate appears; publishes 16-point peace plan, which Poland rejects.

Sept. 1—Germany invades Poland and annexes Danzig; Britain and France give Hitler ultimatum.

Sept. 3—Britain and France declare war.

Sept. 5—U. S. proclaims neutrality.

Sept. 17—Russia invades Poland.

Sept. 18—Nazi and Russian armies meet at Brest-Litovsk, Poland.

Sept. 28—Poland partitioned by Germany and Russia.

Nov. 4—FDR signs bill removing arms embargo; substitutes "cash and carry" trade with belligerents.

Nov. 30—Russia attacks Finland.

Dec. 14—Soviet Russia expelled from League for invading Finland.

Dec. 17—Admiral Graf Spee scuttled off Montevideo by Hitler order after fleeing British warships.

1940

Mar. 12—Finland surrenders.

Apr. 9—Nazis invade Denmark and Norway.

May 10—Nazis invade Netherlands, Belgium, Luxemburg.

May 10—Chamberlain resigns as Prime Minister; Churchill takes over.

May 12—Germans cross French frontier.

May 13—Churchill tells Britain he has "nothing to offer but blood, toil, tears and sweat."

May 14—Dutch surrender.

May 16—FDR asks $1.8 billion for defense, 50,000 planes.

May 26–June 3—Dunkerque evacuation: about 335,000 out of 400,000 Allied soldiers rescued from Belgium by civilian and naval craft from Britain.

May 28—King Leopold surrenders Belgian army; Cabinet disowns him.

May 28—Council of National Defense established to co-ordinate industry, transportation, finance and labor.

June 9—Norway surrenders.

June 10—Italy declares war on France and Britain; invades France.

June 14—Germans enter Paris; city undefended.

June 15—Russia seizes Lithuania; seizes Latvia and Estonia June 17.

June 16—Pétain government formed in Bordeaux; moved to Vichy July 2.

June 22—France and Germany sign armistice at Compiègne.

June 23—De Gaulle forms French Natl. Comm. in London; announces Free French will carry on war.

Aug. 8—German Luftwaffe launches all-out attack on England.

Aug. 21—Trotsky assassinated in Mexico City.

Sept. 3—U. S. trades 50 over-age destroyers to Britain in return for right to lease cites for 8 naval bases in British possessions.

Sept. 16—Selective Service Bill signed; over 16,000,000 register Oct. 16.

Oct. 27—New York World's Fair closes. 45 million paid admissions in 2 years.

Oct. 28—Italy invades Greece.

Nov. 14—Nazis bomb Coventry.

Dec. 29—FDR calls for all aid to Britain short of war; declares U. S. "Arsenal of Democracy."

1941

Mar. 11—FDR signs Lend-Lease Bill.

Apr. 13—Russia and Japan sign 5-year neutrality pact.

Apr. 17—Yugoslavia surrenders; Gen. Mikhailović continues guerrilla warfare; Tito leads left-wing guerrillas.

Apr. 27—Nazi tanks enter Athens; remnants of British army quit Greece.

May 10—Rudolf Hess, Nazi Deputy Führer, lands in Scotland by plane.

May 24—HMS *Hood*, largest British warship, sunk by Nazi battleship *Bismarck; Bismarck* sunk by British naval and air attack May 27.

June 22—Hitler attacks Russia.

June 24—U. S. pledges all possible aid to U.S.S.R.

July 25—FDR freezes Japanese assets in U. S.; trade ties with Japan virtually severed.

Aug. 12—Pétain summons France to full support of Hitler.

Aug. 14—Atlantic Charter: FDR and Churchill agree on war aims.

Oct. 3—Hitler announces Russia is defeated and will never rise again.

Nov. 26—Hull presents proposals to envoys Kurusu and Nomura for readjusting U. S.-Japanese relations.

Dec. 7—Japan attacks Pearl Harbor, Philippines, Guam, forcing U. S. into war Dec. 8; Pacific Fleet crippled.

Dec. 8—U. S. and Britain declare war on Japan.

Dec. 10—Japanese planes sink British battleship *Prince of Wales* and battle cruiser *Repulse* off Malaya.

Dec. 11—Germany and Italy declare war on U. S.; Congress declares war on those countries.

1942

Jan. 2—MacArthur gives up Manila; fights on for Bataan and Corregidor.

Jan. 5—Consumer rationing begins in U. S. as auto tires are rationed.

Jan. 28—21 American nations, at Rio de Janeiro, call for severance of all ties with Axis.

Jan. 30—FDR signs price-control legislation.

Feb. 15—British surrender Singapore.

Mar. 17—MacArthur arrives in Australia; promises "I will return."

Apr. 9—U. S. forces on Bataan surrender.

Apr. 18—U. S. planes in Doolittle "Shangri-la" raid hit Tokyo.

May 4–8—Japanese fleet suffers heavy losses in Coral Sea; 1st naval battle in history fought entirely with carrier aircraft.

May 6—Gen. Wainwright surrenders Corregidor.

May 30—Over 1,000 RAF planes smash Cologne in one of war's mightiest raids.

June 4–6—U. S. aircraft inflict 1st serious setback on Japanese fleet near Midway.

June 10—Lidice, Czechoslovakia, razed; all males put to death in Nazi terror following Heydrich assassination.

Nov. 8—U. S. and Britain land great army in French North Africa.

Nov. 11—Nazis begin occupation of all France.

Nov. 13–15—U. S. smashes Japanese armada in Solomons.

Nov. 27—French scuttle main part of fleet at Toulon to save it from Nazis.

Dec. 1—Gasoline rationing begins.

1943

Jan. 14–24—Casablanca Conference: Churchill and FDR agree on unconditional-surrender goal.

Feb. 1–2—German 6th Army surrenders at Stalingrad; turning point of war in Russia.

Mar. 29—Rationing of meats, butter, cheese, canned fish, edible oils begins.

May 12—Remnants of Nazis trapped on Cape Bon, ending war in Africa.

May 15—3rd International (Comintern) dissolved in Moscow.

June 10—FDR signs withholding tax.

July 25—Mussolini deposed; Badoglio is Premier.

Sept. 3—Allied troops land on Italian mainland.

Sept. 8—Italy surrenders unconditionally.

Sept. 10—Nazis seize Rome.

Oct. 19–Nov. 1—Moscow Conference: Hull, Eden, Molotov pledge unity to win war and establish world organization; promise democratic Italy and free Austria.

Nov. 22–26—Cairo Conference: FDR, Churchill, Chiang-Kai-shek pledge defeat of Japan, free Korea.

Nov. 28–Dec. 1—Teheran Conference: FDR, Churchill, Stalin agree on invasion plans.

Dec. 26—Nazi battleship *Scharnhorst* sunk by British off Norway.

1944

Jan. 22—Allied troops land behind German lines at Anzio near Rome.

June 4—Rome falls to Allies.

June 6—D-Day: Allies land in France.

June 15—Germans begin robot-bomb attacks on England.

July 20—Hitler wounded in bomb plot.

Aug. 25—Paris liberated.

Oct. 20—American troops invade Philippines.

Dec. 16—Germans launch counteroffensive in Belgium (Battle of Bulge).

1945

Jan. 12—German line crumbles; Allies regain 100 sq. mi. in "Bulge."

Feb. 3—U. S. troops enter Manila.

Feb. 11—Yalta Agreement signed by FDR, Churchill and Stalin.

Feb. 19—Marines land on Iwo Jima; raise flag on Mt. Suribachi Feb. 23.

Apr. 1—U. S. invades Okinawa.

Apr. 12—FDR dies; Truman is President.

Apr. 25—U. N. parley opens at San Francisco.

Apr. 25—Americans and Russians meet on Elbe.

Apr. 28—Mussolini and mistress, Clara Petacci, killed by partisans.

Apr. 29—33,000 inmates of Dachau concentration camp freed by U. S. forces.

Apr. 30—Soviet flag raised over Reichstag in Berlin.

May 1—Grand Adm. Karl Doenitz takes command in Germany; death of Hitler announced.

May 2—Berlin falls.

May 7—Germany surrenders unconditionally (V-E Day).

June 26—U. N. Charter signed at San Francisco; goes into effect Oct. 24.

June 28—Polish government under Russian influence installed, despite protests of government-in-exile.

July 16—A-bomb test at Almagordo, N. Mex. (announced Aug. 6).

July 17–Aug. 2—Potsdam Conference: Truman, Churchill (Attlee after July 28), Stalin establish council of foreign ministers to prepare peace treaties; plan German postwar government and reparations.

July 26—Attlee Prime Minister; Churchill is out.

July 28—U. S. Senate ratifies (89–2) U. N. Charter.

Aug. 6—A-bomb blasts Hiroshima.

Aug. 8—Russia declares war on Japan.

Aug. 9—Nagasaki hit by A-bomb.

Aug. 14—Japan surrenders.

Sept. 2—Japanese sign surrender terms aboard battleship *Missouri* (V-J Day).

Oct. 24—U. N. officially established.

Nov. 15—Truman, Attlee and Mackenzie King decide in Washington Conference that A-bomb secrets will not be shared until U. N. adopts control plan.

Dec. 27—Moscow Conference, attended by Byrnes, Molotov and Bevin, makes preliminary plans for atomic-energy control, peace treaties and Korea.

1946

Jan. 10—1st meeting of U. N. General Assembly opens in London.

Jan. 17—1st meeting of Security Council opens in London.

Jan. 19—Iran presents 1st case to Security Council; demands Russia get out of Azerbaijan; Russia withdraws May 6.

Feb. 2—Trygve Lie installed as 1st U. N. Secretary-General.

Apr. 3—1st meeting of International Court opens in The Hague (formal opening Apr. 18).

Apr. 3—Japanese Lt. Gen. Homma executed; ordered Bataan Death March.

Apr. 8–18—Final Assembly session at Geneva dissolves League of Nations.

Apr. 29—U. S. proposes treaty with Britain, Russia and France to keep Germany disarmed 25 years; Russia cool to idea.

May 31—U. S. and Britain demand free elections in Rumania.

July 1—Underwater atom bombing at Bikini. (Repeated July 25.)

Oct. 1—Verdict in Nuremberg war trial: 12 Nazi leaders (including 1 tried in absentia) sentenced to hang; 7 imprisoned; 3 acquitted.

Oct. 15—Goering commits suicide a few hours before 10 other Nazis are executed Oct. 16.

Nov. 9—Truman ends all price and wage controls, except on rent, sugar and rice.

Dec. 3—Greece charges Albania, Bulgaria and Yugoslavia with aiding Communist rebels in northern part of Greece.

Dec. 4—Judge Goldsborough fines John L. Lewis $10,000 and UMW $3.5 million for contempt in disobeying Court order.

Dec. 19—Fighting breaks out in Indo-China between French and Reds.

Dec. 30—U. N. Atomic Energy Commission recommends (10–0) U. S. control plan; Russia and Poland abstain.

1947

Jan. 1—Britain nationalizes coal mines.

Jan. 28—U. S. rebukes Polish Communists for rigging election.

Feb. 10—Peace treaties for Italy, Rumania, Bulgaria, Hungary, Finland signed in Paris.

Mar. 4—Russia rejects U. S. plan for U. N. atomic-energy control.

Mar. 12—Truman asks Congress for $400 million to save Greece and Turkey from Communist expansion (Truman Doctrine).

Apr. 14—General Motors settles wage dispute with United Electrical Workers (CIO) with increase equivalent to 15¢ per hour; sets pattern.

June 5—Secy. of State Marshall says U. S. may have to spend billions to put Europe on its feet economically (Marshall Plan).

June 23—Taft-Hartley Labor-Management Relations Act passed over Truman's veto.

July 12–15—16 nations meet in Paris to study Marshall Plan (Russia and 8 others stay away).

Aug. 1—Security Council calls on Dutch and Indonesians to cease hostilities.

Aug. 15—India freed by Britain.

Aug. 31—U. N. investigating committee recommends Britain give up control of Palestine and that Arab and Jewish states be established.

Oct. 5—Moscow announces formation of new 9-nation Communist Information Bureau (Cominform).

Nov. 14—General Assembly votes commission to set up free government for all of Korea.

Nov. 20—Princess Elizabeth married to Lt. Philip Mountbatten.

1948

Jan. 17—U. N. Good Offices Commission effects truce in Indonesia.

Jan. 30—Gandhi assassinated.

Feb. 23–25—Communists seize power in Czechoslovakia.

Mar. 10—Czech For. Min. Jan Masaryk plunges to death.

Apr. 20—Federal Court fines John L. Lewis $20,000 and UMW $1.4 million for criminal contempt for failure to call off strike within week, as ordered by Court.

Apr. 21—Security Council votes plebiscite in Kashmir to decide whether province goes to India or Pakistan; both sides object.

May 14—Nation of Israel proclaimed; British end mandate at midnight; Arab armies attack.

May 25—General Motors grants 11¢ hourly wage increase to UAW; wages to move up or down according to living costs—first escalator clause.

June 11—U. N. appeal brings temporary truce in Palestine.

June 18—Russia stops traffic between Berlin and Western occupation zones.

June 21—Berlin airlift begins; ends May 12, 1949.

June 22—Russian veto prevents Security Council from approving atomic-control plan favored by majority.

June 28—Stalin and Tito break.

Aug. 15—Independent Republic of Korea is proclaimed, following election supervised by U. N.

Nov. 4—General Assembly approves U. S.-sponsored atomic control plan.

Nov. 12—Verdict in Japanese war trial: Tojo and 6 others sentenced to hang (hanged Dec. 23); 18 imprisoned.

1949

Jan. 7—Cease-fire in Palestine.

Jan. 20—Truman proposes Point 4 Program to help world's backward areas.

Feb. 8—Cardinal Mindszenty sentenced in Hungary to life imprisonment.

Feb. 24—Israel signs armistice with Egypt.

Apr. 4—Start of NATO; treaty signed by 12 nations.

May 11—U. N. admits Israel.

Sept. 21—German Federal Republic (West Germany) established.

Sept. 24—Truman discloses Russia has set off atomic explosion.

Oct. 14—11 top Communist leaders in U. S. found guilty of advocating overthrow of government.

Oct. 16—Greek rebels announce end of military operations.

Oct. 26—Minimum wage raised to 75¢.

Dec. 8—Nationalist Chinese government moves to Formosa.

1950

Jan. 13—Russia boycotts Security Council (until Aug. 1) because Red China was refused admittance to U. N.

Jan. 21—Alger Hiss convicted of perjury in denying he gave U. S. secrets to Whittaker Chambers for Communists.

Jan. 31—Truman orders development of hydrogen bomb.

Feb. 11—Sen. Joseph R. McCarthy (R. Wis.) says 57 Communists are working in State Dept.

Mar. 1—Britain sentences Dr. Klaus Fuchs to 14 years in prison for giving atomic secrets to Russia.

June 25—North Koreans cross 38th parallel to invade South Korea.

June 27—Truman orders U. S. air and sea aid to South Koreans.

June 27—Security Council (at that time boycotted by Russia) calls on U. N. members to help repel North Korean aggression.

June 28—Reds capture Seoul.

July 8—Truman names MacArthur commander of U. N. forces in Korea.

Sept. 15—U. S. 10th Corps makes amphibious landing at Inchon, port for Seoul; cuts behind North Koreans.

Sept. 26—MacArthur announces capture of Seoul.

Oct. 7—U. S. 1st Cavalry make 1st U. S. crossing of 38th parallel.

Nov. 20—U. S. 7th Division unit reaches Manchurian border.

Nov. 26—Chinese open massive offensive; hurl U. N. forces back.

Nov. 29–Dec. 11—U. N. forces stranded at Changjin Reservoir; escape to Hungnam; are evacuated by sea Dec. 12–24.

Dec. 19—Eisenhower named commander of NATO forces in Europe.

1951

Feb. 1—General Assembly condemns (44–7) Red China as an aggressor.

Mar. 12–21—Senate Crime Investigating Comm. headed by Kefauver holds hearings in New York City.

Mar. 19—6 nations initial Schuman Plan to pool European coal and steel market. (In effect Feb. 10, 1953.)

Mar. 24—MacArthur intimates U. N. will attack Red China; says he will meet with Reds at any time for truce talks.

Apr. 5—Julius and Ethel Rosenberg sentenced to death as atom spies.

Apr. 11—Truman removes MacArthur from all commands.

May 18—U. N. votes (47–0) arms embargo against Red China; Soviet-bloc members refuse to vote.

June 23—Russia proposes truce.

July 10—Truce talks begin in Korea.

Aug. 21—U. S. orders construction of world's 1st atomic submarine.

Sept. 8—Japanese peace treaty signed in San Francisco by 49 nations.

Oct. 26—Churchill again Prime Minister.

1952

Feb. 6—George VI dies; his daughter becomes Elizabeth II.

Feb. 19—French National Assembly approves European army project.

Feb. 20–25—NATO conference approves European Army; sets goal of 50 divisions and 4,000 planes by end of 1952.

Apr. 8—Truman seizes steel industry to prevent nation-wide strike.

May 7—Truman says U. N. will never return Chinese and Korean Communist prisoners who fear to go back.

May 26—Western Allies and West Germany sign peace contract at Bonn.

May 27—6 nations sign European Defense Community treaty at Paris.

June 2—Supreme Court (6–3) rules Truman's seizure of steel mills unconstitutional; mills returned to owners; USW goes on strike to July 24.

Sept. 19—U. S. bars Charles Chaplin from re-entering U. S. after trip abroad.

1953

Jan. 13—Russia arrests 9 Kremlin physicians, mostly Jews, on charges they plotted death of high officials; freed Apr. 4.

Feb. 6—All wage controls and many price controls end.

Mar. 5—Stalin dies.

Mar. 6—Malenkov becomes Soviet Premier; Beria is Minister of Interior; Molotov is Foreign Minister.

Apr. 10—Dag Hammarskjöld begins term as U. N. Secretary General.

May 22—Eisenhower signs Off-Shore Oil Law giving states rights to all minerals in submerged lands within their boundaries.

May 29—Mt. Everest climbed by British expedition.

June 2—Coronation of Elizabeth II.

June 8—Agreement on POWs reached at Panmunjom; India to head 5-nation commission for custodianship of POWs refusing repatriation.

June 17—East Berliners rise against Communist rule; quelled by tanks.

June 18–21—Pres. Rhee frees 27,000 anti-Red POWs in defiance of U. N.-Red prisoner agreement; truce talks halted June 20.

June 19—Rosenbergs executed.

July 10—Beria is imprisoned on charges of treason; executed Dec. 23.

July 10—Truce talks are resumed.

July 27—Korean armistice signed.

Aug. 5–Sept. 6—POWs exchanged in "Operation Big Switch"; 12,760 released by Reds, 75,799 by U. N.; U. N. believes Reds hold many back.

Aug. 20—Moscow announces explosion of hydrogen bomb.

Dec. 23—21 U. S. POWs turn down repatriation; prefer communism.

1954

Jan. 12—Dulles says new U. S. defense policy is based on instant massive retaliation.

Jan. 19—General Motors announces $1-billion expansion program.

Jan. 20–21—India turns over to Allies more than 21,000 Chinese and North Korean prisoners who spurn communism; they are released Jan. 22.

Jan. 21—1st atomic-powered submarine, *Nautilus*, launched at Groton, Conn.

Jan. 23–24—Ernest Hemingway and wife survive 2 plane crashes in Africa.

Jan. 26—U. S. Senate ratifies (81–6) mutual security treaty with Republic of Korea.

Feb. 18—Big 4 Foreign Ministers conference in Berlin ends; only agreement is for Far East parley in Geneva.

Feb. 26—East Germany is granted "sovereignty" by Russia, but Russian troops will continue occupation.

Mar. 1—5 Congressmen wounded as 3 Puerto Rican nationalists fire from House gallery.

Mar. 16—23 Japanese fishermen burned 80 mi. away from bigger than expected U. S. hydrogen blast in Marshall Is. on Mar. 1.

Apr. 4—Arturo Toscanini resigns as conductor of NBC Symphony Orchestra; to retire after 68-yr. career.

Apr. 22–June 17—Army vs. McCarthy inquiry; subcommittee report Aug. 31 blames both sides.

Apr. 26—19-nation conference on Korea and Indo-China opens in Geneva.

May 7—Dienbienphu falls to Indo-China Red rebels.

May 17—U. S. Supreme Court unanimously bans segregation in public schools.

June 5—Greece, Yugoslavia and Turkey announce new Balkan military alliance.

June 15—Allies end negotiations for Korea peace at Geneva conference, blaming Communist intransigence.

June 18—Anti-Communist exiles invade Guatemala; revolt ends July 2; Communists ousted from government and outlawed.

June 29—AEC votes (4–1) that J. Robert Oppenheimer is security risk.

July 21—Indo-China truce signed at Geneva conference; Reds get half of Viêt-Nam.

Aug. 6—Emilie Dionne, one of quintuplets, dies at 20.

Aug. 24—Communist party outlawed in U. S.

Aug. 30—French National Assembly kills European Defense Community treaty.

Sept. 6—Eisenhower launches world atomic pool without Russia.

Sept. 8—8-nation Southeast Asia defense treaty signed at Manila.

Sept. 27—Watkins committee recommends censuring Sen. McCarthy on 2 counts.

Oct. 11—Russians give Port Arthur to Red China.

Oct. 23—West Germany is granted sovereignty and is admitted to NATO and Western European Union.

Nov. 23—Red China sentences 13 Americans (11 of them Korean War flyers) to prison terms ranging up to life on spy charges.

Nov. 24—William W. Remington murdered by fellow convicts.

Nov. 27—Alger Hiss (*see* Jan. 21, 1950) released after 44 months in prison.

Dec. 2—Senate "condemns" Sen. McCarthy on 2 counts by 67–22 vote.

(For later items see News Record of 1955.)

Significant Changes in Political Status Since 1945

EUROPE

Country	Previous Status	Present Status	Date
Albania	Monarchy	Republic†	1946
Bulgaria	Monarchy	Republic†	1946
Czechoslovakia	Republic	Republic†	1948
Germany	Under Allied Control Council	Divided*	1948
Hungary	Nominal Monarchy	Republic†	1946
Ireland	British Dominion	Republic	1949
Italy	Monarchy	Republic	1946
Poland	Republic	Republic†	1945
Rumania	Monarchy	Republic†	1947
Saar	Part of French Occupation Zone under Allied Control Council	Autonomous (subject to reserved powers of France)	1950
Trieste	Under temporary Yugoslav and Allied Control	Divided between Italy and Yugoslavia	1954
Yugoslavia	Republic†	Republic‡	1948

* The German Federal Republic (West Germany) is a sovereign state; the German Democratic Republic (East Germany) is Communist controlled. † Communist controlled. ‡ Communist, but not under control of the U.S.S.R.

ASIA

Country	Previous Status	Present Status	Date
Burma	Member of British Commonwealth	Republic	1948
Cambodia	Protectorate	Associated State	1950
China	Republic	Republic[1]	1949
Ceylon	British Crown Colony	British Dominion	1948
Formosa	Dependency of Japan	Province of China	1945
French Establishments in India	French Colonies	Part of India	1954
India	British Dominion	Republic[2]	1947 & 1950
Indonesia	Part of Netherlands Indies	Republic	1949
Israel	Part of British Mandate of Palestine	Republic	1948
Korea	Dependency of Japan	Divided[4]	1948
Laos	Protectorate	Associated State	1950
Pakistan	Part of India	British Dominion	1947
Palestine	British Mandate	Partitioned[5]	1950
Philippines	Transition to complete independence	Republic	1946
Viêt-Nam	Colony (Cochin-China) and Protectorates (Annam, Tonking)	Divided[3]	1954

[1] Communist controlled. [2] Within the British Commonwealth. [3] Associated State of French Union (south part) and Vietminh (Communist controlled) (north part), as provided in Geneva Armistice signed July 21, 1954. [4] North Korean People's Republic (Communist controlled) and Republic of Korea (South Korea). Armistice signed at Panmunjom on July 21, 1953, ended war between North and South Korea. [5] Between Israel and Jordan.

AFRICA

Country	Previous Status	Present Status	Date
A.-E. Sudan	Condominium	Transitionary*	1953
Egypt	Monarchy	Republic	1953
Libya	Italian Colony†	Monarchy	1951
Suez Canal Zone	Protected by British forces	British troops to be withdrawn within 20 mos.	1954

* 3-yr. transition to self-determination. † Occupied by Britain.

Line-Up of Nations

WORLD WAR I

Allies			Central Powers
Belgium	Guatemala	Panamá	Austria-Hungary
Brazil	Haiti	Portugal	Bulgaria
China	Honduras	Rumania	Germany
Costa Rica	Italy	Russia	Turkey
Cuba	Japan	Serbia	
France	Liberia	Siam	
Great Britain	Montenegro	United States	
Greece	Nicaragua		

WORLD WAR II

The United Nations*			The Axis
Argentina	Ethiopia	Norway	Albania
Australia	France	Panamá	Bulgaria
Belgium	Greece	Paraguay	Finland
Bolivia	Guatemala	Peru	Germany
Brazil	Haiti	Philippines	Hungary
Canada	Honduras	Poland	Italy
Chile	India	Saudi Arabia	Japan
China	Iran	Syria	Rumania
Colombia	Iraq	Turkey	Slovakia
Costa Rica	Lebanon	Un. of So. Africa	Thailand
Cuba	Liberia	United Kingdom	
Czechoslovakia	Luxemburg	United States	
Denmark	Mexico	U.S.S.R.	
Dominican Republic	Netherlands	Uruguay	
Ecuador	New Zealand	Venezuela	
El Salvador	Nicaragua	Yugoslavia	

*Italy became a co-belligerent in 1944.

THE COLD WAR

Anti-Communist Nations			Communist Nations
North Atlantic Treaty Organization (NATO)			**Europe**
Belgium	Greece	Norway	Albania
Canada	Iceland	Portugal	Bulgaria
Denmark	Italy	Turkey	Czechoslovakia
France	Luxemburg	United Kingdom	German Democratic Republic (East)
Germany (West)*	Netherlands	United States	Hungary
Western European Union†			Poland
Belgium	Germany (West)*	Netherlands	Rumania
France	Italy	United Kingdom	U.S.S.R.
	Luxemburg		**Asia**
Southeast Asia Treaty Organization (SEATO)			China
Australia	New Zealand	Thailand	Korean People's Republic (North)
France	Pakistan	United Kingdom	Mongolian People's Republic
	Philippines	United States	Tibet (actually part of Communist China)

*German Federal Republic. †U. S. and Canada are guarantors but not participants.

WORD SECTION

New and Newly Important Words and Meanings
Troublesome Pronunciations . . . Words Frequently Misspelled
Words Frequently Confused . . . Forms of Address

Prepared by

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New and Newly Important Words and Meanings

Note: This is a selected list of words, from a wide variety of subject areas, that have become of fairly recent general interest. Many, as *radar, colorcast,* and *dynel,* are new in the sense that they were recently introduced into the language. Some, as *omnibus, libretto,* and *alligator,* are recently acquired new or extended senses of well-established terms. Others, as *rocket ship, snollygoster* and *fission,* are terms that have been in limited use within certain circles for a considerable time but have only recently become generally used and known. It would be out of keeping with the spirit of a list like this and beyond the space available to treat the entries in formal dictionary fashion. In general, only the commonest spellings and the most basic and important of the new senses have been given.

ABSTRACT: Characterized by designs in which an artist, using lines or blocks of color rather than pictures of actual objects, attempts to set forth his feelings or ideas.

ACETATE RAYON: A rayon fiber made with cellulose acetate.

ACK-ACK: An anti-aircraft gun; also, the fire of such a gun.

ACRONYM: A word formed from the initial letters or the first and last syllables of the words in a compound (*jato* from *jet* assisted *take-off*; *motel* from *motorists' hotel*).

ACTH: A compound obtained from the pituitary gland, used especially in the treatment of arthritis.

ACTINOMYCIN: An antibiotic isolated from certain soil bacteria.

ADDITIVE: Any substance which, when added to another product, such as gasoline or a storage battery, is supposed to make it more powerful or longer-lasting.

AEROEMBOLISM: An abnormal bodily condition, called also *air bends,* due to the formation of nitrogen bubbles in the blood and spinal fluid brought about by rapid ascent into high altitudes.

AGITPROP: Serving as a means for spreading propaganda intended to promote militancy among the common people;—applied originally to pro-Communist activities.

AIRLIFT: A supply line operated by aircraft.

AIRSTRIP: A hard-surfaced runway for the take-off and landing of aircraft; also, a portable runway made of steel sheets.

ALCOMETER: A device for detecting drunkenness by measuring the amount of alcohol in a sample of exhaled air.

ALERT: A signal to warn of danger, as from hostile aircraft; also, the period of time in which the signal is in effect.

ALLIGATOR: A flat-bottomed, armored military vehicle for use on land or water.

ALL-OUT: Making use of all available power and resources (as, an *all-out* effort).

AMPLITUDE MODULATION or **AM:** A system of radio broadcasting in which the amplitude of the carrier wave is modulated in accordance with the form of the sound or signal wave.

AMTRAC: An amphibious tractor, used chiefly as a military vehicle.

ANGLE: A special approach or technique for achieving an end, as for writing a news story or promoting an interest.

ANTIBIOTIC: A substance produced by a living organism, especially by a bacterium or fungus, that is used to kill or stop the growth of disease germs.

ANTIHISTAMINE: An agent used in the prevention or treatment of allergic reactions.

AQUACADE: An elaborate water show consisting of exhibitions of swimming, diving, and acrobatics, accompanied by music.

ARENA THEATER = THEATRE-IN-THE-ROUND.

ARTIFICIAL INSEMINATION: Introduction of semen into the genital tract of a female animal by other than the natural means.

ASTRODOME: A transparent dome on the upper surface of an airplane from which the navigator makes celestial observations.

ATEBRIN: An antimalarial drug, quinacrine dihydrochloride.

ATOMIC BOMB, ATOM BOMB, or **A-BOMB:** A bomb with violent explosive power that is due to a sudden release of atomic energy.

ATOMIC COCKTAIL: A radioactive substance such as sodium iodide, dissolved in water and given as a drink to cancer patients.

AUDIO: Pertaining to or used in the transmission or reception of sound in T[illegible]

AUDIOPHILE: One who is enthusiastic about sound, especially music from high-fidelity broadcasts or recordings.

AUDIOVISUAL: Involving both hearing and seeing (as, *audiovisual* education uses films, slides, phonograph records, and the like, to supplement instruction).

AUREOMYCIN: An antibiotic isolated from a soil microorganism.

AUSTERITY: A severe or enforced economy characterized by a lack of luxuries (as, postwar *austerity* in Great Britain).

AUTOMATIC TRANSMISSION: Automotive transmission in which the gears are shifted automatically.

AUTOMATION: The substitution of machines or mechanical devices for human beings in a manufacturing process.

BABUSHKA: A triangular kerchief worn over the head and tied under the chin.

BABY SITTER: One who is hired, usually for a few hours, to care for children while the parents are absent from the home.

BALL-POINT PEN: A fountain pen in which the writing point is a tiny ball that rotates freely against an inking magazine.

BAMBOO CURTAIN: The military, political, and propaganda barrier isolating territory controlled by the Chinese Communists.

BANK: A place for storing a reserve supply; —occurs in such combinations as *blood bank, eye bank, bone bank, skin bank.*

BANKROLLER: One having a sizable bankroll or a ready and ample supply of funds.

BARBITURATE: One of a large group of drugs often used as sedatives or antispasmodics.

BARREL: To move at a high speed in a straight course;—used especially of vehicles.

BASIC ENGLISH: A copyrighted system intended to simplify the learning of English by the use of a vocabulary limited to the 850 most essential words.

BATHYTHERMOGRAPH: An instrument for recording the temperature variations of sea or fresh water according to depth.

BAZOOKA: A portable rocket-launcher, used chiefly as an antitank weapon.

BEACHHEAD: An area on an enemy shore which an advance force occupies and defends.

BEAM: A directional radio signal for guiding aircraft, audible as a continuous tone as long as the aircraft stays on course, but as a broken tone if it veers to the left or right.

BEBOP: A style of jazz with many notes to the measure, usually played loud and fast and characterized by changing of key and accenting of odd beats.

BELLYLAND: To land an airplane on the under side of its fuselage without using the landing gear.

BENTHOSCOPE: A steel sphere used for deep-sea diving and observation.

BETATRON: An apparatus in which electrons are accelerated to high speed and formed into beta rays for use in generating high-voltage X-rays or for nuclear bombardment.

BIG WHEEL, *slang:* An important, impressive person; sometimes one who only feels himself important.

BIKINI: A woman's two-piece bathing suit of abbreviated style.

BINAURAL SOUND: Sound recorded or transmitted by pairs of equipment in order to give the listener the effect of having heard the original with his own two ears.

BIOLOGICAL WARFARE: Warfare in which living organisms, especially disease germs, are used against human, animal, and plant life; also, warfare involving the use of synthetic chemicals against plants.

BIRD, *slang:* An enthusiast (as, a *bird* about music); also, any person thought to be odd or strange.

BITCH, *slang:* To gripe; to complain.

BLACK MARKET: Trade in violation of official controls or restrictions, especially those concerning price ceilings, rationing, and priorities; also, a market or group carrying on such trade.

BLISTER: A compartment, often covered by a transparent dome, that protrudes from the fuselage of an aircraft and is usually occupied by a gunner or observer.

BLITZ: A violent, swift military attack; also, any sudden, overpowering attack;—short for *blitzkrieg.*

BLOCKBUSTER: A huge, high-explosive demolition bomb, usually one weighing two, four, or six tons.

BLOODMOBILE: An automobile equipped for collecting blood from volunteer donors.

BLUEPRINT: A detailed plan for a project or program of action (as, a *blueprint* for mobilization).

BLUE RIBBON JURY: A panel of jurors selected for qualifications such as education or property ownership, that may be called to sit in complicated cases.

BOBBY SOCK: A girl's sock reaching above the ankle.

BOBBY SOXER: A young girl, especially one in the early teens;—from the wearing of bobby socks.

BOMB: A small container in which a liquid, as an insecticide, is held under pressure and released as a spray.

BOOBY TRAP: An explosive device concealed and attached to some harmless-looking object; also, any trap for the unsuspecting.

BOOGIE-WOOGIE: A style of playing blues on the piano, characterized by a persistent bass rhythm and elaborate treatments of a simple melody, often in contrary motion to the bass.

BOOKBURNING: Systematic destruction, usually by a government, of books believed to contain dangerous ideas; hence, the suppression of ideas.

BOOKMOBILE: A closed autotruck with shelves of books, which serves as a traveling library or bookstore.

BOOSTER: A device for strengthening radio or television signals in areas where the reception is weak.

BOP: Short for *bebop;* also, one fond of bebop.

BOTTLENECK: To delay progress; to hold up a process, especially at a critical point.

BOYS' TOWN: A farm or school for homeless or delinquent boys, organized like a town and governed by the boys themselves.

BRAINWASHING: The forcible replacement of one set of political ideas by another set, especially through indoctrination or mental torture.

BRASS: Military and naval officers of high rank or position, especially those in top commands.

BREAK: A short rest period, often one set aside from the working day.

BRIEF: To give final, last-minute instructions or information (as, to *brief* the crew of a bomber before a mission).

BROWNOUT: A dimming of street lights and various other outdoor lighting, chiefly to conserve fuel supplies.

BRUSHOFF: A curt or offhand dismissal (as, to give someone the *brushoff*).

BUDGIE: Short for *budgerigar*, the zebra parakeet.

BUILD-UP: Extremely favorable notice, as by the press or radio, designed to popularize a product, personality, or organization.

BUILT-IN: Functioning as a part of, but separately identifiable from, a given unit (as, *built-in* shelves); also, conditioned (as, a *built-in* reaction).

BULLDOZER: A tractor-driven machine with a broad, blunt horizontal blade or ram, used especially in road building and clearing land.

BUMP: To push (a person) out of his place in order to take it for oneself (as, to *bump* a man from his job).

BURGER: A sandwich usually made of a flat roll cut in half and filled either with hamburger or another food specified (as, pork*burger* or beef*burger*).

BURP GUN: A machine pistol.

BUTADIENE: A colorless gas, made from petroleum and alcohol, used in the making of synthetic rubber.

BUY, *slang:* To accept; to agree to; to assent (as, to *buy* an idea or an argument).

BUZZ: To fly an airplane fast and at a low altitude over (as, to *buzz* an airfield).

CABANA: A beach shelter resembling a cabin, usually with an open side facing the sea.

CADRE: A nucleus of thoroughly indoctrinated leaders who actively promote the interests of a communist or revolutionary party.

CAFÉ CURTAINS: Plain, straight-hanging curtains, usually hung on poles by loops or rings, used to cover the lower part of a window or door.

CAFÉ SOCIETY: People who frequent fashionable cafés and night clubs.

CALYPSO: A ballad in African rhythm, often a parody or a satire on current events, sung especially by natives of the British West Indies as part of a pre-Lenten carnival.

CANDID CAMERA: A camera, usually a small one with a fast lens, used for taking unposed, informal pictures, usually without the subject's knowledge.

CANNIBALIZE: To dismantle a machine in order to get parts for use as replacements in other machines.

CAPSULE: Of a small type or in a condensed or streamlined form (as, a *capsule* review, criticism, or submarine).

CAPTIVE AUDIENCE: An audience obliged to stay within hearing of a speech or broadcast, often being subjected to advertising or propaganda.

CARD-CARRYING MEMBER: A Communist to whom a party membership card has been issued and who presumably carries it on his person.

CARHOP: A waiter or waitress at a drive-in restaurant who serves food and drinks to customers in their parked cars.

CARPORT: A roofed shelter for an automobile, usually attached to another building, and with two or more open sides.

CARTRIDGE: A removable pickup in the tone arm of a phonograph.

CASUAL: Of clothing, designed in a simple, easy style suitable for informal or sports events.

CEILING: A maximum, as for a price, wage, fee, or rent, which is fixed as the upper legal limit by government authority, usually on the basis of the level prevailing at a certain date.

CERAMAL = CERMET.

CERMET: A strong, heat-resistant metallic alloy.

CHAIN REACTION: In chemistry and physics, a process which can continue itself because one of its resulting products is always able to start the process anew until the original material is used up.

CHALKBOARD: A smooth flat surface, often of slate or composition, for writing on with chalk.

CHALKTALK: A talk or lecture which the speaker illustrates by making drawings or cartoons as he talks.

CHANNEL: A narrow band of frequencies on which a radio or television program may be transmitted.

CHARACTER ASSASSINATION: The attempt to discredit or destroy the reputation of another person, often by making vague, unproved accusations.

CHEAP: Having a depreciated purchasing power or value, especially as the result of a currency inflation (as, *cheap* dollars).

CHEESECAKE: Photography or photographs intended to display or accent female charms or attractions; also, any photograph having a considerable amount of sex appeal.

CHICHI, *slang:* Stylish; chic; fashionable; also, affected or esoteric.

CHLORAMPHENICOL: An antibiotic effective against certain rickettsiae and viruses.

CHLORDANE or **CHLORDAN:** An odorless liquid insecticide.

CHORAL SPEAKING: Interpretive reading or recitation, usually of poetry or rhythmic prose, by a group of voices known as a *speech choir*.

CHOREOGRAPH: To compose and arrange a ballet or dance; also, to provide a subject or a piece of music with a ballet or dance.

CHOROSCRIPT: A system of notation used in teaching and recording dance figures and steps.

CINCHER: A wide, snug-fitting ornamental belt for women.

CLASSIFIED: Forbidden to be revealed out-

side authorized circles, for reasons of national security.

CLOAK-AND-DAGGER: Of literature, dealing in intrigue and melodramatic action, usually of characters in a colorful historical setting, and involving espionage, duels, or the like.

CLOBBER, *slang:* To beat or pound mercilessly; also, to defeat overwhelmingly.

CLOSED CIRCUIT: Television transmission in which the signal is not broadcast but can be received only by interconnected receivers.

CLOUD CHAMBER: A closed vessel containing saturated water whose sudden expansion makes visible by a trail of white droplets the passage of an ionized particle.

CLOUD SEEDING: The introduction of a substance, as dry ice or silver iodide, into certain types of clouds in order to cause rainfall.

CLOVERLEAF: A road plan resembling a four-leaf clover, in which one road passes over another, permitting traffic to merge without left-hand or abrupt turns or direct crossings.

CLUTCH: A critical point; a pinch (as, to come through in the *clutch*).

CLUTCH BAG: A woman's purse or bag, usually small and without a handle, which is carried in the hand.

COAXIAL CABLE: A cable used in the transmission of telegraph, telephone, and television signals, consisting of a tube of conducting material surrounding but insulated from a central conductor.

COFFEE BREAK: A rest period during the working day, allowing the employee time for a cup of coffee.

COLD FRONT: In meteorology, the forward boundary of a mass of cold air.

COLD WAR: A struggle between two nations or groups of nations, waged by use of political and economic strategy, propaganda, and other measures short of armed combat.

COLD WAVE: In hairdressing, a permanent wave produced by a chemical solution.

COLLECTIVE SECURITY: Security of all the members of an association of nations from aggression by any other nation or nations.

COLORCAST: A television broadcast in color.

COMBO: A small group of musicians, usually jazz players;—from *combination.*

COMIC BOOK: A paper-bound book made up of a series of cartoons or comic strips, sometimes humorous, often telling a story of adventure or crime.

COMMANDO: A band or unit of troops specially trained for making surprise raids into enemy territory; also, a member of such a unit.

COMMERCIAL: That portion of a sponsored radio or television program devoted to advertising; also, the script prepared for the advertising announcement.

COMMIE: A member or agent of the Communist party; also, a fellow traveler.

COMPATIBLE: Designating a system in which color television broadcasts may also be received in black and white on receivers not specially equipped for color reception.

COMPOUND F: A hormone used in the treatment of arthritis.

CONDITIONER: A substance which, when added to soil, improves aeration, workability, and crop yield.

CONSCRIPT: To enroll by compulsion for military service.

CONTACT LENS: A lens of glass or plastic fitted to the eyeball, worn instead of the usual eyeglass to correct defects of vision.

CONTAINMENT: Restraint; specif., the restriction of Communism to fixed territorial limits.

CONTOUR FARMING: A system of farming in which plowing and planting follow the contour lines of sloping land, thus retarding erosion from the runoff of rainwater.

CONVERSATION PIECE: Any unusual or distinctive article, as of clothing or furniture, which is likely to attract attention and provide a subject for conversation.

CONVERTER: A device for adapting a television receiver to receive channels other than those for which it was designed.

CONVERTIPLANE: An aircraft that takes off and lands like a helicopter but flies like a conventional airplane.

COOKOUT: An outing at which a meal is cooked and eaten in the open.

CORN: Corny acting or playing.

CORNY: Trite, stale; old-fashioned, or countrified; also, of music, played or sung in a bland, unsophisticated style.

CORONARY THROMBOSIS: A blood clot (a *thrombus*) occurring in an artery of the heart.

CORTISONE: A compound used in treating rheumatoid arthritis and certain allergies.

COUNTER-INTELLIGENCE: Organized activities of military intelligence services designed to block enemy sources of information and deceive the enemy by ruses, misinformation, and the like.

COUNTERWORD: A word used in popular speech in such a variety of situations that its original, specific meaning is lost and it serves only as a counter or token used in place of a more definite word (examples: *swell, awful, nice*).

COURTESY CARD: An identification card which supposedly assures its holder of favors or special treatment, as from the police.

CRACK UP: To crash or cause to crash, as an airplane; hence, to break down; collapse; go to pieces.

CRASHLANDING: An airplane landing in which the plane is either damaged or destroyed.

CREDIT LINE: A line, note, or name published with an article, news story, photograph, or the like, acknowledging the source.

CREEPING: Making, or thought to be making, inroads or undesired progress (as *creeping* socialism).

CREW CUT: A short-cropped, bristly haircut for men.

CURVACEOUS: Having a feminine figure which is well-proportioned and marked by pronounced curves.

CUTBACK: A reduction in a prevailing rate, amount, or number (as, a production *cutback*).

CYBERNETICS: Comparative study of the control system in the human brain and nervous system with that in such mechanical-electrical communication systems as computing machines.

CYCLOTRON: An apparatus used for imparting high speeds to electrified particles, used especially to bombard the nuclei of atoms in order to produce transmutations and artificial radioactivity.

DAISY: A circular cheese, usually about 12 to 14 inches in diameter and weighing between 18 and 24 pounds.

DDT: A colorless, odorless insecticide, used especially against body lice, flies, mosquitoes, and agricultural pests.

DEAD DUCK: Anything doomed or past recovery.

DEADPAN: A completely expressionless, immobile face.

DECAMISADO: A member of the Argentine working class.

DECONTROL: To remove control from (as, to *decontrol* the price of eggs).

DE-EMPHASIZE: To diminish in importance; to make less prominent (as, a move to *de-emphasize* football at a college).

DEEP-FREEZER: A cabinet where food may be quick-frozen and stored.

DEFICIT SPENDING: Spending in excess of income;—usually applied to a government.

DEGREE DAY: A unit that represents one degree of declination from any given point in the mean outdoor temperature for a day, often used in measuring fuel requirements for a building.

DE-ICER: Any system or mechanism used to rid or keep free of ice the wings and tail of an aircraft.

DELTA WING PLANE: A fast, high-flying airplane, triangular in shape, like the Greek letter delta.

DELTIOLOGY: The hobby of collecting post cards.

DENAZIFY: To rid (the people or institutions of a Nazified country) of Nazism and its influence.

DESENSITIZE: In psychiatry, to free from a neurotic state; to make immune to a morbid emotional domination.

DETECTAPHONE: A telephone apparatus equipped with a microphone transmitter, used especially for listening secretly.

DETERGENT: A soluble or liquid preparation, often called "soapless soap," that resembles soap in its ability to emulsify oils and hold dirt in suspension.

DIAL TONE: A steady hum, audible in a telephone receiver, indicating that the line is free and a number may be dialed.

DILLY: Something of superior or remarkable quality; often, something presenting unusual difficulties or complications.

DIM OUT: To obscure in dimness, as by restricting illumination to specks or slits of light, lights shaded from above, or blue lights.

DIRECTIVE: An order or instruction as to plan or procedure, such as might be issued by a military official, or by a government or business executive.

DISC JOCKEY or DISK JOCKEY: One who conducts and announces a program of musical records, usually with advertising or nonmusical comments interspersed.

DISCOGRAPHY: A descriptive, classified catalogue or listing of phonograph records, usually including dates and performers.

DISCOPHILE: An enthusiastic collector or student of phonograph records.

DISPLACED PERSON or DP: A person driven or deported from his home country during World War II as a prisoner of war, or for forced labor, or because of his race, politics, or religion.

DOCUMENTARY: A film that depicts in artistic form a factual and authentic presentation, as of an event or a social or cultural phenomenon.

DOODLE: An aimless, somewhat automatic design, sketch, or scribbling made while one's mind is occupied with something else.

DOSIMETER: A device for measuring the amount of radioactivity absorbed by the body.

DOUBLE-DOME: A highbrow; an intellectual.

DOUBLE-TAKE: A delayed reaction to the importance or meaning of something that at first escaped notice;—usually in the phrase, to do a *double-take.*

DOUBLE TALK: Talk or writing that appears to be earnest and meaningful but is actually a mixture of sense, gibberish, and unintelligible verbiage.

DOUBLE-THINK: The ability to have in mind at the same time two contradictory beliefs and accept both;—coined by George Orwell in the novel *Nineteen Eighty-Four.*

DRIVE-IN: A place of business, as a theater or restaurant, designed to permit patrons to remain in their automobiles while watching a performance or making purchases.

DRONE: A pilotless airplane controlled by radio from the ground or another plane; also, a vessel similarly controlled.

DRUNKOMETER: A device for detecting and measuring the degree of alcoholic intoxication by analysis of the breath.

DUB: To provide (a film) with a new soundtrack; to blend music or sound effects into (a radio or television broadcast).

DUCK: An amphibious military vehicle having wheels and a propeller, that can be used as either a truck or a barge.

DYNEL: A synthetic textile fiber in staple form; also, the material made from this fiber.

EARMOLD: The portion of a hearing aid that fits into the ear.

ECDYSIAST: A strip-teaser;—a humorous term coined by H. L. Mencken.

EGGHEAD: An intellectual; a highbrow.

ELDER STATESMAN: A man who has retired from active public life but continues to act as an unofficial advisor, especially to government officials.

ELECTRONICS: The branch of physics that deals with the emission, motion, and effects of electrons.

ELECTROSHOCK: A state of shock induced by the passage of an electric current through the brain and useful in the treatment of certain mental disorders.

EMCEE: A master of ceremonies;—from *M. C.*

ENRICH: To improve (a food) in nutritive value by adding vitamins and minerals to it during processing.

ESCALATOR CLAUSE: A clause in a contract providing adjustment to cover such possibilities as increases or decreases in costs of labor, material, or living.

ESCAPE LITERATURE: Literature or writing providing mental escape or distraction from routine or reality.

EXPEDITER: One whose job it is to ensure an adequate supply of raw materials for fulfilling production contracts and to direct the movement of processed goods to where they are needed or wanted.

EXPOSURE METER: An instrument used by photographers for indicating the correct amount of exposure under varying light conditions.

EXPRESSWAY: A superhighway.

FADE: In radio and television, to change gradually in loudness or distinctness (as, to *fade* a picture or a sound in or out).

FAIR-TRADE AGREEMENT: An agreement between the manufacturer and the distributor of a trade-marked article, prescribing a minimum price for its sale.

FALTBOAT: A collapsible boat similar in size and shape to a kayak.

FAST BUCK: Money that can be made readily or quickly, usually with little effort.

FEATHERBED RULE: A union rule that requires an employer to hire unneeded workmen or to pay for duplication of jobs; also, one limiting the amount of work that workmen may do in a day.

FEATHER MERCHANT, *slang:* One who tries for easy jobs or is thought to be lazy; also, *military slang,* a civilian.

FEATURETTE: A short feature; specif., a motion picture of less than the usual length.

FEEDBACK: A partial return of the effects or product of a process to its source or to a preceding stage;—used especially of social, psychological, or biological systems.

FELLOW TRAVELER: One who sympathizes with and, often, furthers the program or ideals of, a group (originally, the Communist party) without being a member of the group.

FIFTH COLUMN: Secret supporters of an enemy engaged in sabotage or other subversive activity within defense lines.

FINGER PAINTING: A technique in which splotches of pigments (*finger paints*) are applied to wet paper and spread with the hands or fingers to form a picture or design.

FISSION: The splitting of the nucleus of an atom into two nearly equal parts, resulting in a tremendous release of energy.

FISSIONABLE: Capable of undergoing fission.

FIVE PERCENTER: One who undertakes to aid businessmen in obtaining contracts or doing other business with the government, usually for a fee of five per cent.

FLAME-OUT: A sudden blowing-out of the fire of a jet engine, caused by improper functioning of the fuel-supply system.

FLIPOVER CARTRIDGE: A phonograph cartridge that has separate needles for playing both microgroove and standard records and that may be turned to bring the proper needle into playing position.

FLUFF: To bungle or stumble in delivering one's lines during a performance; also, to miss a cue.

FLUID DRIVE: An automotive power coupling between the flywheel of the engine and the transmission gears that operates on a hydraulic turbine principle.

FLUORIDATION: Treatment of drinking water with a fluoride to prevent tooth decay.

FLYING SAUCER: Any of various unidentified objects, usually described as disc- or saucer-shaped, reportedly seen in the air.

FOAM RUBBER: A spongy, fine-textured rubber used especially for cushions, mattresses and the like.

FOLD: To discontinue production or business for lack of patronage or because of public neglect (as, the stage play *folded* after only two performances).

FRAME OF REFERENCE: The environment of personal knowledge or experience in which an idea is conceived or interpreted.

FREELOADER: A "sponge"; one who frequently obtains something (as food or drink) that is paid for by someone else.

FREEWAY: An express highway that bypasses towns and is largely free of intersections; a superhighway.

FREEZE: To fix inflexibly, as by an executive order, at a given level or in the status on a given day (as, to *freeze* a price or a design).

FREQUENCY MODULATION or **FM:** A virtually static-free system of radio broadcasting in which the frequency of the carrier wave is modulated in accordance with the form of the sound or signal wave.

FRINGE AREA: An area on the outer edges of one having a greater strength or concentration (as, a *fringe area* for television reception).

FRINGE BENEFIT: Any benefit, such as health insurance or sick leave, not included in the basic wage, that workers receive from their employers.

FROGMAN: A person equipped for extended periods of underwater swimming, usually for military reconnaissance or underwater demolition.

FRONT: A person or group serving as public representative for a pressure group or subversive organization, often unwittingly while thinking to act in public or patriotic interests.

FUSED COLLAR: A collar, especially one on a man's shirt, that has been lined or otherwise treated to retain its shape.

GADGETEER: An inventor or maker of gadgets; also, one given to buying or using them.

GAGSTER: A writer of gags or jokes, especially for radio and television programs.

GAMMA GLOBULIN: A fraction of blood plasma rich in antibodies and used against diseases such as polio and hepatitis.

GAPA: A rocket-powered guided missile used against aircraft and against other missiles —from *ground-to-air pilotless aircraft.*

GENOCIDE: A calculated attempt to destroy systematically a racial, religious, or poli-

ical group; also, an effort to destroy the language, religion, or culture of a group.

GERIATRIC: Of or pertaining to *geriatrics*, the branch of medicine dealing with old age and its diseases; also, aged (as, the *geriatric* patient).

GHETTO: A quarter of a city in which members of a racial group are segregated by social and legal pressure.

GI: A person who is serving or has served as an enlisted member of the U. S. armed forces.

GIMMICK: A trick; a clever or artful device or scheme.

GISMO: A gadget; device; contraption; also, anything without a name.

GIVEAWAY: A radio or television show in which members of the audience participate and receive prizes.

GOBBLEDYGOOK: Involved or obscure language such as is frequently found in official pronouncements.

GOLDBRICK, *slang:* To shirk or find excuses to evade assigned work.

GOOFBALL, *slang:* A sleeping tablet, especially one of the barbiturates.

GOOGOL: In mathematics, the figure *1* followed by 100 zeros.

GRASSROOTS: The farming districts of the country; also, the people living in them, thought of as a politico-economic group holding firm and independent views.

GRAVEYARD SHIFT: The third of three daily shifts, as in a factory, usually beginning at midnight.

GREEN THUMB: A special or unusual ability to make plants grow;—usually in the phrase, to have a *green thumb*.

GREMLIN: An impish gnome, whimsically accused by airmen of tampering with motors, instruments, and the like.

G SUIT: An inflatable suit worn by aviators during rapid aerial maneuvers to counteract the effects on the body of pressure greater than gravity.

GUIDED MISSILE: Any missile whose course may be directed during passage by a built-in target-seeking device or by radio control.

GUN: To open the throttle of (an engine) to increase the speed.

GYROPILOT: A control mechanism, sometimes called *automatic pilot*, that keeps an airplane in level flight and on a set course.

HALF-TRACK: One of the endless chain-tracks used instead of the rear wheels on a certain type of vehicle; also, a tractor or truck with half-tracks and front wheels.

HARDTOP: An automobile having most of the characteristics of a convertible, but with a stationary steel top.

HASSLE: A mix-up; also, an argument or fight.

H-BOMB or **HYDROGEN BOMB:** An extremely powerful fusion bomb.

HEDGEHOP: To fly an airplane so low that it has to "hop" over trees and hedges.

HELIPORT: A place for helicopters to land in order to discharge or receive passengers or cargoes.

HEPCAT: A musician in a jazz band; also, a devotee of jazz.

HEX: A spell or enchantment; a jinx (as, to put the *hex* on someone).

HIGH FIDELITY or **HI-FI:** The reproduction of sound, usually by a radio or phonograph, with a high degree of faithfulness to the original.

HIT PARADE: A listing, as of popular songs or books, in order of current public preference.

HOOD, *slang:* A hoodlum; a rowdy.

HOOPER or **HOOPERATING:** An indication, based on the results of telephone polling, of the popularity of a radio or television program.

HORSE'S TAIL = PONY TAIL, below.

HOT: Radioactive; also, having to do with radioactive material (as, a *hot* laboratory).

HOT ROD, *slang:* An out-of-date automobile with the trimmings stripped off and the engine stepped up to permit high speeds.

HOWGOZIT CURVE: A running graph of the progress of an aircraft flight, especially a transoceanic one.

HUCKSTER: One whose business is commercial advertising, especially the preparation of clever, effective advertising programs for radio and television broadcasts.

HYBRID CORN: A crossbreed of Indian corn developed from selected strains and having the best characteristics of each.

HYDROPONICS: The growing of plants, especially vegetables, with their roots in water that contains the essential minerals, instead of in soil.

HYPERTENSION: Abnormally high arterial blood pressure; also, the resulting systemic condition.

INFLUENCE PEDDLER: One who tries to get special privileges, especially from the government, for his clients; a five-percenter.

IN-SERVICE: Taking place or continuing while in service (as, *in-service* training).

INSTITUTE: A short program of instruction or conferences for people already at work in a given field (as, a farmers' *institute* or a bankers' *institute*).

INTERCOM: A two-way short-distance communication system with microphones and loud-speakers at each end;—short for *intercommunication system*.

IRON CURTAIN: A barrier created by such means as censorship and prohibition of free travel to isolate Russian-controlled territory from outside contacts; hence, any similar barrier against communication.

IRON LUNG: A tank device for artificial respiration that forces air into and out of the patient's lungs.

ISOBAR: One of two atoms or elements having the same atomic weights but different atomic numbers.

ISRAELI: Of or relating to the Jewish state of Israel, in Palestine.

ISSEI: A Japanese immigrant to the U. S.; legally, an alien.

JATO UNIT: An auxiliary means of propulsion in which rocket engines are used to assist the take-off of an airplane;—from *jet assisted take-off*.

JEEP: A small, rugged multipurpose motor vehicle; originally one having four-wheel drive.

JET PROPULSION: Propulsion of a body by forces resulting from the rearward discharge of a jet (a high-speed stream of fluid) through an orifice. The forces are a reaction to the discharge of the jet, in accordance with the Newtonian law that to every force there is an equal and opposite reaction.

JIVE: The slang or jargon used by swing musicians and jitterbugs; also, any similar slang.

JUKEBOX: A coin-operated automatic phonograph-record player.

JUNKIE, *slang:* A narcotics user or addict.

KEYNESIAN: Of or pertaining to a system of economics (often associated with the New Deal) advocating considerable government participation in the economic affairs of a country.

KICKBACK: The return of part of a sum received, as of wages or fees, prompted by a previous confidential agreement or by coercion.

KINESCOPE: A form of cathode-ray tube with a screen at one end on which television pictures or oscillographs may be produced;—called also *picture tube.*

KINESICS: The study of such body motions as winks and waves as related to communication between people.

KNOW-HOW: Technical skill and practical ability; competence in planning or producing something.

LANDING CRAFT: Any of numerous naval warcraft designed for putting ashore troops or equipment in beach assaults.

LATCH ON TO: To attach oneself; also, to appropriate; to take over.

LEFTIST: One who belongs to a radical or revolutionary party; also, one who holds or advocates ultraliberal principles.

LEPROMIN TEST: A test for the recognition of immunity to leprosy.

LIBRETTO: The plan or scenario for a ballet.

LIQUIDATE: To kill secretly; also, to eradicate ruthlessly.

LOAFER: A man's or woman's low leather step-in shoe, resembling a moccasin but having a flat heel and stiff outsole.

LOBOTOMY: A leucotomy; an incision into the frontal lobe of the brain to sever nerve fibers in an attempt to relieve certain mental disorders.

LOCKER PLANT: A business establishment having quick-freezing equipment and lockers for storing frozen foods.

LONGHAIR: Idealistic; intellectualized; highbrow (as, *longhair* music or *longhair* writing).

LOYALTY OATH: A signed statement of loyalty, often one in which the signer affirms loyalty to the U. S. and denies any Communist connections or sympathies.

LYSENKOISM: A biological doctrine advanced by T. D. Lysenko, Russian agronomist, in defiance of orthodox genetics.

MAE WEST: A yellow life-saving jacket that can be inflated by two cartridges of carbon dioxide, worn especially by airmen in flights over water.

MEGADEATH: One million deaths (as, the power of an atomic bomb may be indicated in terms of *megadeaths*).

MEGATON: A million tons; also, an explosiv force equal to that of a million tons o TNT;—used especially with reference to hydrogen bomb.

MERCY KILLING: Euthanasia; killing, es pecially in a quick, painless manner, to pu the victim out of extreme pain or misery

ME-TOO-ISM: The echoing of another's opin ions or attitudes, usually implying an in ability or unwillingness to think for one self.

MICROFILM: A strip of film on which a re duced-size photographic record of printed matter may be kept in a small space.

MICROGROOVE: A narrow V-shaped groov used on phonograph records intended to play at speeds of 33 1/3 or 45 revolutions per minute.

MIDDLEBROW: Middle-class; midway between highbrow and lowbrow.

MILK BAR: A place where milk, ice cream and other dairy products are sold and may be consumed.

MOBILE: A delicately balanced type o sculpture, usually having movable parts which can be set in motion by air currents or other means.

MOLOTOV COCKTAIL: A crude explosive de vice, typically, a gasoline-filled bottle capped with an oil-soaked rag that is ignited just as the bottle is thrown at the target.

MOMISM: A supposed excessive admiration and sentimentalizing of mothers, though to permit a possessive mother to deny her offspring emotional independence.

MONITOR: To check (a radio or television transmission) for quality or fidelity to band; also, to check (as a broadcast) fo military or political significance.

MONOLITHIC: Consisting of one large, un differentiated whole, exhibiting one har monious pattern throughout (as, a *monolithic* party or culture).

MONTAGE: The production of one complete picture by combining several distinct ones often in such a way that they blend with or into each other.

MORETIC: Pertaining to mores or social conventions.

MOTEL: A hotel or group of furnished cabins or attached cottages, situated near a highway, offering accommodations to automobile tourists.

MOTHBALL: That which has been placed in indefinite, protective storage (as, a *mothball* fleet or airplane).

MOTORCADE: A parade or procession of automobiles.

MOTOR POOL: A group or fleet of motor vehicles for use as needed by different organizations or individuals.

MULTIPHASIC: Having or considered in terms of many aspects or phases (as, a *multiphasic* approach to a problem).

MUSCULAR DYSTROPHY: A hereditary disease in which there is progressive wasting away of the muscles.

NAPALM: A thickener used to gel gasoline for incendiary bombs and flame throwers.

NEEDLE: To vex or annoy by repeated sharp gibes; also, to goad or prod.

NEWSCASTER: One who broadcasts news, as on radio or television; also, a commentator.
NIACIN: A member of the B-vitamin group useful in the prevention of pellagra;—called originally *nicotinic acid*.
NISEI: A U. S. citizen born of Japanese immigrant parents.
NONOBJECTIVE: In art, creating effect through shapes and colors not intended to represent actual objects; abstract.
NO-SHOW: A passenger who, after making a reservation on an airplane, does not show up to claim it at flight time and has made no cancellation.
NUCLEAR: Having to do with the atomic nucleus (as, *nuclear* physics).
NURSERY SCHOOL: A center for children, usually under 5 years of age, providing supervised play and social training for a few hours a day.
NYLON: A synthetic material that can be fashioned into tough, strong, elastic threads and used in making brush bristles, hosiery, textile fabrics and the like.
OCCUPATIONAL THERAPY: The treatment of disease or injury by giving the patient regulated work that will help his recovery or rehabilitation.
OMNIBUS: A book of reprints, usually one containing works of the same type or by a single author.
OPPOSITE NUMBER: A person or position in one system corresponding to one in another (as, an ensign is the *opposite number* of a second lieutenant).
OSCAR: One of the statuettes awarded annually for highest excellence in motion picture work; hence, any annual award for excellence.
PACKAGE: A fully constructed, prearranged program or plan, such as a radio show or tour, usually offered for sale at a flat sum; also, any finished product made ready for immediate use by preassembling all essential elements into a unit.
PAN: To move (a camera) in order to follow a moving object or secure a panoramic effect.
PANIC SWITCH: The control on the ejector mechanism that throws a jet pilot from his plane in case of emergency.
PARAPSYCHOLOGY: A branch of psychology concerned with investigating evidence for telepathy, clairvoyance, and the like, and with experiments in the field of extrasensory perception.
PARA-RESCUE TEAM: A team of rescuers who drop by parachute, as to the scene of a plane crash, in order to give immediate aid to anyone in distress.
PARITY: The balance between the prices the farmer receives for his products and the prices he has to pay for the things he must buy.
PARTISAN: A member of a guerilla band working behind enemy lines and engaged in such activities as sabotage, demolition, and diversionary attacks.
PARTY DISCIPLINE: The discipline imposed on its members by a party;—usually applied to the Communist party.
PARTY LINE: The policy or course of action followed by a party, originally specifically by the Communist party.
PATCH TEST: A test for determining susceptibility, made by applying to the skin small pads soaked with the allergy-producing substance in question.
PEDAL PUSHERS: Women's trousers, usually calf-length, for sports wear.
PENICILLIN: An antibacterial substance extracted from green mold, useful in treating infections.
PERIL POINT: The lowest rate to which a tariff can be reduced without injuring the industry of the country levying it.
PHOTOMURAL: An enlarged photograph, usually several yards long, affixed to a wall as decoration.
PICTURE TUBE = KINESCOPE.
PICTURE WINDOW: An extra-large window, usually in a living room, framing a desirable outside view.
PIGGY-BACK PLANE: A small airplane carried aloft on the "back" of a larger one, from which it is released in mid-air.
PIPE: In radio and television, to transmit (a program) by wire or coaxial cable.
PIZZA: A large flat tart made of bread dough spread with pieces of tomato, cheese, and shreds of meat, anchovies or the like, flavored with herbs, and baked thoroughly.
PIZZERIA: A restaurant or bakery where pizzas are made and sold.
PLATTER: A phonograph record.
PLUNGING NECKLINE: A very deep V-neckline in women's apparel.
PLUSH: Luxurious; over-elegant (as, a *plush* summer resort).
POLICE STATE: A totalitarian state having repressive government control of radio, press, culture, and economic and political life.
POLITIC: To campaign for political office; also, to seek to further a special end.
POLLEE: One who is questioned in or gives answers for a poll.
POLO SHIRT: A close-fitting pullover jersey or sport shirt of cotton knitwear, originally patterned after jerseys worn by polo players.
PONY TAIL: A hairdo for women, in which the hair is drawn back tightly from the face and up from the neck, and tied.
POODLE CUT: A very short, curly hairdo for women, in imitation of a poodle's coat.
POP: Short for *popular;*—used especially of music other than classical.
PORTAL-TO-PORTAL: Pertaining to the time a workman spends traveling from the portal or gate of company property to his actual place of work and in returning at the end of the work shift.
PREFAB: A prefabricated house or structure, construction of which consists merely of assembling and uniting standardized parts.
PRESSING: A phonograph record made from a matrix; also, the whole number of such recordings made at a single time.
PRESSURE GROUP: A minority group that brings pressure to bear on legislators or public opinion, often by lobbying or use of propaganda, to force legislation or change public policy.

PRESSURE SUIT: A suit worn by pilots flying at high altitudes, which inflates automatically when pressure inside the plane is lost.

PRESSURIZE: To maintain near-normal atmospheric pressure inside (the sealed cabin of an airplane) during high-level flight.

PRIVATE EYE: A private detective.

PROFILE: A vivid, concise biographical sketch; also, a concise analysis of any subject.

PROXIMITY FUZE: A device for making a projectile explode near the target.

PSYCHODRAMA: A spontaneous drama in which the actors exhibit their natural psychological reactions to a given situation, used especially in treating the mentally ill.

PSYCHOMETRICS: A branch of psychology that deals with the use and application of mental measurement; also, the technique of such measurement.

PSYCHOSOMATIC: Of or pertaining to the influence of mental factors on bodily disorders.

PUBLIC RELATIONS: The activities of a corporation, government, or other organization in building and maintaining good relations with the general public or with special groups.

PUNCH CARD: A data card with punched holes in particular places, each having an assigned significance, used in certain automatic business machines.

PURGE: To rid (a state or party) of members suspected of disloyalty.

PUSHOVER: An opponent easily defeated or a victim incapable of effective resistance; also, any problem presenting no real difficulties.

QUARTERBACK: To direct; to make plans and give instructions for carrying them out.

QUICK-FREEZE: To freeze (food) so rapidly that the natural juices and flavor are preserved.

QUICKIE: Anything hastily prepared or made; anything done without much preparation.

RABBIT EARS: A small indoor television antenna composed of two rods projecting upward from a ball-base in the form of a *V*.

RACISM: The assumption that certain races are naturally superior to others; also, any doctrine or program based on such an assumption.

RADAR: A powerful radio detecting device capable of establishing the distance, altitude, and direction of motion of any object in the path of its beam.

RADIANT HEATING: The heating of a house or room by heat radiated from large surfaces, such as floors, walls, or baseboards, that have first been warmed by heating coils or hot-air ducts.

RADIATION SICKNESS: An illness that results from exposure to radiation, as in radiotherapy or an atom bomb explosion.

RANCH HOUSE: A one-story dwelling, usually with an informal interior plan and a low-pitched roof.

REACTOR: An arrangement of fissionable material designed for the production and control of a chain reaction;—called also *nuclear reactor* and *pile*.

RECESSION: A slowing down of commercial and industrial activity, less severe than a depression; also, a period of such slackening.

RECONVERSION: The process of converting (especially a war plant) back to the production of civilian goods.

RED-BAITER: One who baits, attacks, or harasses communists or radicals.

REFRESHER: Providing reinstruction after a period of inactivity or instruction designed to keep one abreast of new developments in a field (as, a *refresher* course in auto mechanics).

RESISTANCE: An organized underground movement in a conquered country made up of groups of fighters engaged in sabotage and secret operations against occupation forces;—often with *the*.

REV: To raise or lower the number of revolutions per minute;—originally, of an airplane motor.

Rh FACTOR: A factor present in the red blood cells of 85 per cent of white persons (Rh-positive) and absent in 15 per cent (Rh-negative), so called because discovered in the blood of *Rh*esus monkeys. Rh incompatibility is manifested by red cell destruction and occurs when the two types are mixed in one person, especially as in the infant of an Rh-positive father and Rh-negative mother.

RHUBARB: A heated argument or dispute, often one that takes place on the field during a baseball game.

RIBOFLAVIN: Vitamin B_2, the growth-promoting substance of the vitamin-B group.

RIGHTIST: In politics, a member of the right; a conservative or royalist.

ROBOT BOMB: A small, pilotless jet-propelled airplane, steered by a gyroscopic device and loaded with explosives, that falls as an aerial bomb when its fuel supply is gone.

ROC: An aerial bomb with a television apparatus that transmits information back to the bombardier, who may then correct his initial aim by remote radio control.

ROCKET SHIP: An aircraft propelled by rocket power.

ROLLER DERBY: A form of sport in which teams on roller skates race around a track.

ROTATION: The military system of exchanging individuals or units assigned to combat or arduous duties with personnel more comfortably situated.

RUMPUS ROOM: A room in a home, often in the basement, set apart and suitably furnished for games and recreation.

RUPTURED DUCK: The symbol of an eagle with wings outspread depicted in the discharge emblem for personnel of the U. S. armed services.

RUSSIAN ROULETTE: A game or act of bravado in which the "player" puts one cartridge into a revolver, aims it at himself, spins the cylinder, and pulls the trigger.

SATELLITE: A state or country politically

and economically dominated by a more powerful neighboring one.

SCAN: In radar, to cause (a certain area) to be traversed by a directive beam.

SCARE BUYING: Sudden buying, often involving an overstocking, of certain goods because of the fear that they may become scarce or unobtainable.

SCHMOE or **SCHMO,** *slang:* A stupid person; a misfit; a jerk.

SCIENCE FICTION: Imaginative or fantastic fiction, dealing especially with such subjects as life in the future, interplanetary travel, and life on other planets.

SCRATCH TEST: A test for determining susceptibility, made by rubbing an extract of the allergy-producing substance into the skin.

SCREEN: To pass through a standardized test for sorting out candidates according to abilities or eliminating the unfit; hence, to examine or select methodically.

SCREWBALL: Someone whose ideas or actions are crazy or fantastic; also, anything ridiculously absurd or zany.

SCRIPTER: A writer of scripts, as for movies, radio, or television.

SEND: In swing music, to perform with or inspire to spontaneous improvisations; also, to play so as to elate a listener.

SHAKEOUT: A moderate slowing down of commercial and industrial activity with a decrease in prices and employment, usually regarded as a readjustment toward normal after a period of inflation.

SHARP, *slang:* Conspicuously attractive; in keeping with the latest styles, as of clothing or speech.

SHOCK THERAPY: Treatment of mental disorders by means of a coma induced artificially by the administration of drugs or electric shock.

SHOOTING WAR: Conflict involving actual participation of armed forces in combat, as opposed to a war of nerves or a propaganda war.

SHOPPING CENTER: A group of retail stores or other business places, sometimes in one building, and usually provided with a large parking lot.

SIGNATURE: A tune or sound effect used to identify a particular radio program or feature;—called also *theme.*

SILK SCREEN PROCESS: A stencil method in which a design is made on a fine-mesh silk screen and transferred to another surface by forcing pigment through the screen with a squeegee.

SIMULCAST: A simultaneous broadcast of a program by radio and television; also, a program thus broadcast.

$64 QUESTION: The most baffling question in a given situation, often one that defies direct answer.

SKIP-STOP: Not stopping at all points (as, *skip-stop* elevator or subway service).

SKYSWEEPER: A radar-aimed anti-aircraft weapon.

SKYTYPING: A technique, similar to skywriting, in which seven equally spaced aircraft emit puffs of smoke to form the letters of a message.

SLICK or **SLICK PAPER:** A large-circulation magazine printed on glossy paper;—usually implies slightness of content and technical smoothness.

SMAZE: A combination of smoke and haze.

SMEAR: To defame or blacken the reputation of a person or group by name-calling or by maliciously spreading exaggerated charges or rumors.

SMEAR CAMPAIGN: A concentrated program of vilification and smearing.

SNACK BAR: A counter or bar at which light refreshments and lunches are sold or served.

SNEAK PREVIEW: An unannounced showing of a new motion picture, usually to determine audience reaction to it.

SNOLLYGOSTER: A rascal or an unscrupulous person, especially an unprincipled politician.

SNOW: Small, moving, bright or dark spots on a television screen, resulting from the same causes as static in radio.

SOAP OPERA: A daytime radio or television serial drama performed on a commercial program chiefly for housewives.

SOCIALIZED MEDICINE: Administration by a government or other organized group of medical and hospital services for all members of a class or all members of the population.

SONAR: An apparatus that detects the presence and location of submarines or other underwater objects;—from *so*und *na*vigation *a*nd *r*anging.

SOUFFLÉ: Tiny multicolored beads of glass or metal, used for embroidery.

SOUND CONDITIONING: The control of sound, as in an auditorium, by eliminating unwanted noise and excessive reverberations.

SOUP UP: To step up the horsepower of a motor, as on an airplane or a jalopy.

SPACE: Popularly, the region beyond the earth's atmosphere, lying between and beyond the planets and the stars.

SPACE MEDICINE: A suggested branch of medicine which would try to study conditions of outer space and their effect on the human body.

SPACESHIP: An imaginary aircraft for interplanetary travel.

SPEECH CLINIC: A clinic for the diagnosis and correction of speech disorders.

SPELUNKER: One whose hobby is exploring and studying caves and underground phenomena.

SPIV, *slang:* One who contrives to make a living without working; a slacker.

SPLINTER GROUP: In politics, a group broken away from a larger, original organization.

SPLIT-LEVEL HOUSE: A house built on different levels, usually with the floor level of a single-story section about midway between the floor levels of an adjoining two-story section.

SPOTTER: A civilian who watches the sky to report and identify approaching aircraft.

STATELESS: Without a state or nationality, as a person who was a citizen of a country no longer in existence.

STATESIDE: Of, pertaining to, characteristic of, or coming from the continental U. S.

(as, a transfer from Alaska to *stateside* duty).

STATIONARY FRONT: In meteorology, a boundary between two air masses which show little or no movement.

STATION BREAK: In radio and television, the pause in a program or between programs to permit stations to identify themselves.

STATION WAGON: A sedanlike automobile having a tail gate and back seats that can be removed or folded so the vehicle can be used for light trucking.

STATISM: Government control or direction of important aspects of the economic life of a citizen.

STEREOPHONIC: Of reproduced sound, giving the effect of coming from two or more directions.

STOCK CAR RACING: Automobile racing in which ordinary cars are used rather than specially constructed racers.

STOCKPILE: A reserve supply of any essential material accumulated and stored as a safeguard against a shortage.

STORM COAT: A tailored winter coat for men or women, usually having a heavy lining and a mouton collar, and often made of gabardine.

STRAWHAT CIRCUIT: A summer theater circuit, often including the more popular resort areas.

STREPTOMYCIN: A substance extracted from certain soil bacteria and used against the bacteria of certain diseases, as typhoid fever, tularemia, and tuberculosis.

SULFA: Of or belonging to a class of drugs that are related to sulfanilamide and have a destructive action against certain types of bacteria.

SUPERHIGHWAY: A highway consisting of four or more lanes, designed for fast-moving traffic.

SUPERMARKET: A large, departmentalized retail store, usually self-service, selling foods and other household merchandise.

SUPERSONIC: Designating a speed greater than that of sound (about 738 miles per hour); also, moving or capable of moving at such speed (as, a *supersonic* aircraft).

SWING SHIFT: The work shift between the day and night shifts in a factory operating on a 24-hour basis, usually from 4 p.m. to midnight.

SYNC: In motion pictures and television, short for *synchronize* or *synchronization*.

TAKE-HOME PAY: The remainder of a person's gross wages after deductions, as for income-tax withholding, retirement, and union dues, have been made.

TAPE: A magnetized ribbon on which sounds may be recorded. — To record (sounds) on such a ribbon.

TELECAMERA: A television camera.

TELECAST: A program broadcast by television. — To broadcast by television.

THEATER-IN-THE-ROUND: A theater so arranged that the action area is in the center and the audience is seated on all sides of it;—called also *arena theater*.

THERMONUCLEAR: Pertaining to the heat energy resulting from or connected with changes in the nuclei of atoms.

THIAMINE: A vitamin, also known as *vitamin B_1*, that prevents beriberi and certain kinds of neuritis.

THOUGHT CONTROL: Repressive control or domination of individual ideas and thinking by another person or group.

THREE-DIMENSIONAL or 3-D: Giving the illusion of depth or varying distances;—applied to pictures, especially stereoscopic motion pictures.

TONE ARM: The movable part of a phonograph that contains the sound box or pickup and permits the needle to follow the grooves in the record.

TOP-DRAWER: Of the highest or first order of rank, excellence or importance.

TRACE ELEMENT: A chemical element, usually a metal, essential in minute amounts to the welfare of a plant or animal.

TRACKMOBILE: A lightweight tractor used for moving railroad cars in a switchyard.

TRANSISTOR: An electronic device similar in use to the electron tube.

TWEEDY: Given to or fond of wearing tweeds;—usually implying a certain matter-of-factness, robustness or informality of manner.

TWEETER: A small loudspeaker that responds only to high sound frequencies and is used to reproduce sounds of high pitch.

2,4-D: A white crystalline compound used as a weed killer.

ULTRAHIGH FREQUENCY or U.H.F.: In radio and television, any frequency in the range from 300 to 3000 megacycles.

VEEP: A vice-president.

VERY HIGH FREQUENCY or V.H.F.: In radio and television, any frequency in the range from 30 to 300 megacycles.

VIDEO: *Television.* Pertaining to or used in sending or receiving the image (as, *video* frequency). Contrasted with *audio*.

VIDEOCAST: A television broadcast.

VIP: A very important person; sometimes, one using an assumed name for security reasons.

WALKIE-LOOKIE: A portable, battery-operated television camera.

WALKIE-TALKIE: A compact, battery-operated transmitting and receiving radiotelephone that is carried like a knapsack and especially adapted for communication in the field.

WATER SKIS: Wide skis towed by a fast motorboat and ridden like a surfboard.

WEEDICIDE: Any weed killer, especially a chemical one, as 2,4-D.

WELFARE STATE: A state that, by its concern with public health, insurance against sickness and unemployment, and similar measures, assumes a large share of responsibility for the welfare of its citizens.

WETBACK: A person who enters the U. S. illegally from Mexico by wading or swimming the Rio Grande River.

WHAMMY: A curse or jinx (as, to put the *whammy* on a person).

WITCH-HUNT: A searching out of victims, especially liberals, professedly to expose them as disloyal or subversive, but actually to harass them for political reasons.

WOOFER: A loudspeaker, larger than a tweeter, that responds only to lower sound frequencies.

WORKSHOP: A course or seminar emphasizing free discussion, exchange of ideas and practical application of skills and principles, chiefly for people already working in the field.

WOW: A distortion in reproduced sound consisting of a slow rise and fall in pitch due to variations of speed in the sound-reproducing system.

ZOOT SUIT: A flashy suit of extreme cut, usually having a long jacket with broad shoulders, and high-waisted peg-top trousers.

Troublesome Pronunciations

These transcriptions indicate, as closely as possible in a system lacking symbols with clearly defined values, the pronunciations that we believe to be now most widely used in everyday speech in the United States. We do not imply that any pronunciation not shown here is unacceptable.

A syllable printed in capitals has heavy stress, a syllable printed in italics has light stress (stress intermediate between heavy and none at all). Example AL-ba-*kurr*-kee (Albuquerque). The symbol ÷ preceding a few pronunciations means "widespread but its acceptability is contested by many."

abdomen: AB-dum-un, ab-DOME-un
absent: (verb) ab-SENT
absolve: ab-SOLV, ab-ZOLV
absorb: ab-SORB, ab-ZORB
abusive: a-BEW-siv, a-BEW-ziv
accessory: ak-SESS-r-ee
acclimate: a-KLY-mut, ACK-lum-*ate*
accurate: ACK-yer-ut
acorn: EIGH-*korn*, EIGH-kern
acoustic: a-KOOHS-tik
acumen: a-KEW-mun
addict: (noun) ADD-ikt
address: (noun) a-DRESS, ADD-*ress*
Adenauer, Konrad: AHD-n-*our*
adhesive: ad-HEE-siv, ad-HEE-ziv
adobe: a-DOUGH-bee
Adonis: a-DONN-us, a-DOUGH-nus
adult: a-DULT, ADD-*ult*
advertisement: *add*-ver-TYZE-munt, ad-VURT-uz-munt
aerial: (antenna) AIR-ee-ul
aero-: AIR-o or EIGH-er-o (not AIR-ee-o)
aggrandizement: *agg*-run-DYZE-munt, a-GRAN-*dyze*-munt, a-GRAN-diz-munt
agile: ADG-ul, ADG-*yle*
ague: EIGH-*gew*
aigrette: eigh-GRETT, EIGH-*grett*
albino: al-BYE-no
Albuquerque: AL-ba-*kurr*-kee
Algonquin: al-GONN-kwun
alias: EIGH-lee-us
alibi: AL-a-*bye*
ally: (noun) AL-*eye*, a-LYE
alma mater: AL-ma MAHT-r, AHL-
almond: AHM-und, AL-mund, AMM-und
altercation: *awl*-ter-KAYSH-n
alternate: (noun, adj.) AWL-ter-nut; (verb) AWL-ter-*nate*
altimeter: al-TIMM-at-er, AL-tum-*eet*-er
alumnae: a-LUMM-nee
alumni: a-LUMM-nigh
amateur: AMM-a-*turr*, AMM-a-*toor*, AMM-a-cher
amen: AH-MENN, when not sung also EIGH-MENN
amenable: a-MENN-ub-l, a-MEEN-ub-l
amenity: a-MENN-ut-ee
amortization: *amm*-er-tuz-AYSH-n, a-*mort*-uz-AYSH-n
amortize: AMM-er-*tyze*, a-MOR-tyze
amphitheater: AMM-fa-THEE-ut-r
anchovy: ANN-*choa*-vee, ann-CHOA-vee
anemone: a-NEMM-un-ee
angina pectoris: ann-JINE-a PEKT-r-us, ANN-ja-na
Ankara: ANK-r-uh
antarctic: ant-AHRK-tik, ÷ ant-AHRT-ik
antepenult: ANT-ee-PEE-*nullt*
anti-: ANT-ee, ANN-*tigh*
antipodes: ann-TIP-ud-*eeze*
apotheosis: a-*poth*-ee-OH-sus, *app*-a-THEE-us-us
Appalachian: *app*-a-LATCH-n, *app*-a-LAYCH-n
apparatus: *app*-a-RATE-us, *app*-a-RATT-us
applicable: APP-lik-ub-l, a-PLICK-ub-l
apposite: APP-uz-ut
appreciate: a-PREE-shee-*ate*
apricot: APE-ra-*kott*, APP-rik-ut
aqua-: ACK-wa
aquatic: a-KWATT-ik, a-KWOTT-ik
Arab: AIR-ub; in "wild Arab," "young Arab," EIGH-*rabb*
arbiter: AHR-but-er
arbutus: ahr-BUTE-us
arch-: followed by an English word: AHRTCH (but *archangel* is AHRK-*aynge*-l)
archi-: AHRK-a or AHRK-ee (but *archipelago* is either *ahrk*-a-PELL-a-*go* or *ahrtch*-a-PELL-a-*go*)
archivist: AHRK-a-vust, AHRK-*eye*-vust
arctic: AHRK-tik, ÷ AHRT-ik
argot: AHR-gut, AHR-*go*
argyle: AHR-*guile*
aria: AHR-ee-a, AIR-ee-a
-arily: the *-ar-* usually has heavier stress than any preceding syllable—for example, pry-MEHR-ra-lee (*primarily*), *temp*-r-EHR-ra-lee (*temporarily*)
aristocratic: a-*risst*-a-KRATT-ik
Arkansas: (state) AHRK-n-*saw;* (river) the same or ahr-KANZ-us
armistice: AHRM-us-tus
artisan: AHRT-uz-n
Aryan: AIR-ee-un, AHR-ee-un
Asia: EIGH-zha
Asiatic: *eigh*-zhee-ATT-ik
asparagus: not -grus or *-grass*
aspirant: us-PYRE-unt, ASP-r-unt
asthma: AZZ-ma
athlete: not ATH-a-*leet*
atoll: ATT-*tahl*, a-TAHL
attaché: *att*-a-SHAY
Audubon: AWD-ub-n, AWD-ub-*ahn*
au gratin: oh (or aw) GRATT-n, GRAHT-n
auld lang syne: AWLD (or OHLD) *lang* SIGN (or ZIGN)

Auriol, Vincent: awr-YAWL
aurora borealis: aw-RORE-a (or a-RORE-a) *bore*-ee-AL-us (or *bore*-ee-AIL-us)
auspices: -suz not *-seez*
automobile: AUGHT-a-moe-BEEL, AUGHT-a-moe-*beel, aught*-a-MOE-*beel*
auxiliary: awg-ZILL-yer-ee, ÷ -ZILL-r-ee
aviation: *ave*-ee-AYSH-n, *avv*-ee-
avocado: *avv*-a-KAHD-o
avoirdupois: AVV-er-da-POIZ
aye: ("yes") EYE
azure: AZH-r

Bacardi: ba-KAHRD-ee
bacilli: ba-SILL-eye
bade: badd, bayed
badinage: BADD-n-*ahzh*
bakelite: BAKE-*light,* BAKE-a-*light*
ballet: BAL-*eigh,* bal-EIGH
banal: ba-NAL, ba-NAHL, BANE-l
Bao Dai: BOW DYE (BOW rhymes with COW)
barbiturate: *bahrb*-a-TOOR-ate, bahr-BITCH-r-ate
bases: pl. of *base,* BAY-suz; pl. of *basis,* BAY-*seez*
bas relief: BAH-ree-LEEF, BASS-ree-LEEF
batik: ba-TEEK
baton: ba-TAHNN
Baton Rouge: BATT-n ROOZH
bauxite: BAWKS-*ite,* BOAZ-*ite*
bayou: BUY-*oo*
Beau Brummel: BO BRUMM-l
bedizen: ba-DIZE-n, -DIZZ-n
behemoth: bee-HEE-muth, BEE-a-*mahth*
beige: bayzh
bellows: BELL-oez, BELL-us
beneficiary: *benn*-a-FISH-r-ee, *benn*-a-FISH-ee-*ehr*-ee
Ben-Gurion, David: BENN-goor-YOAN
benzedrine: BENN-za-*dreen,* ben-ZEDD-run
bequeath: rhymes with either *wreathe* or *wreath*
berserk: bur-SURK, bur-ZURK, BURR-*surk*
bestial: BESS-chul
Bethlehem: BETH-lee-um, BETH-la-*hemm*
betroth: *o* as in *cloth* or *clothe; th* as in *lath* or *lathe*
Bevan, Aneurin: un-EYE-run BEVV-un
bicycle: BUY-*sick*-l (see *motorcycle, tricycle*)
bifurcate: BUY-fer-*kate,* buy-FUR-*kate*
Bijou: BEE-zhoo
bikini: ba-KEE-nee, BICK-a-nee
billet-doux: BILL-eigh-DOO
biography: buy-OGG-ra-fee
bison: BIZE-n, BICE-n
bituminous: ba-TOO-ma-nus, buy-
blackguard: BLAGG-*ahrd,* BLAGG-rd
blancmange: bla-MAHNDJ
blasé: BLAH-ZAY
blatant: BLATE-nt
blouse: rhymes with *louse* or *Howe's*
boatswain: BOCE-n
Boccaccio: bo-KAHTCH-ee-*owe*
Bohème, La: LAH boh-EMM, -AIM
Boise: (Ida.) BOYCE-ee, BOIZE-ee
Bologna: (city) ba-LONE-ya; (sausage) ba-LONE-ee, ba-LONE-a
bona fide: BONE-a (or BONN-a) *figh*-dee (or ÷ *fighd*)
Bonneville: BONN-a-*vill*
boudoir: BOOD-*wahr*
bouillon: BOOL-*yonn,* BOOL-yun, BOO-*yonn*
boulevard: BULL-a-*vahrd,* BOO-la-*vahrd*
bouquet: bowe-KAY, boo-
Bourbon: (family) BOOR-bun, (whisky) BURR-bun
bourgeois: BOOR-*zhwah*
boutonniere: BOOT-n-EAR
bowie knife: BOO-ee, BOWE-ee
Brahma: (cattle) BRAY-ma, BRAH-ma
Brahman: (caste) BRAH-mun
brassard: bra-SAHRD, BRASS-*ahrd*
brassiere: bra-ZEER, BRASS-ee-AIR
bravo: (shout) BRAH-voe
breeches: BRITCH-uz (but BREATCH-uz in *breeches buoy*)
bronchial: BRONK-ee-ul (not BRONN-ik-ul)
Brontë: BRONT-ee
brooch: broach, brewch
brougham: BRUE-um, BROE-um
brusque: brussk, broosk
Bucharest: BOO-ka-*rest*
Buenos Aires: BWAY-nus (or BOH-nus) AIR-eez (or EYE-reez)
buffet: (slap) BUFF-ut; (sideboard) buff-EIGH, boof-EIGH
buoy: boi, BOO-ee
buoyant: BOY-unt, BOO-yunt
bureaucracy: bew-ROCK-ra-see
business: BIZZ-nus
butte: bewt
Byelo-Russia: bee-ELL-oe-RUSH-a
Byzantine: BIZZ-n-*teen, -tyne;* bizz-ANN-*teen, -tyne*

cabana: ka-BANN-a
cadaver: ka-DAVV-r
cadre: (military) KADD-ree
Caesarea: SEEZ-r-EE-a, SESS-r-EE-a
caffeine: KAFF-EEN, KAFF-ee-in
Cairo: (U. S. places) CARE-oh or KAY-roh; (Egypt) KYE-ro
caisson: CAY-*sonn,* CASE-n
Calais: (France) CAL-*ay,* cal-AY
caliph: CAY-lif, CAL-if
calliope: (instrument) ca-LYE-a-pee, ÷ CAL-ee-*oap*
calyx, calyces: CAY-licks, CAY-la-*seez*
camellia: ca-MEAL-ya
Camembert: CAMM-um-*bair*
camouflage: CAMM-a-*flahzh, -flahdj*
canapé: CANN-a-pee
candelabra: *can*-da-LABE-ra, -LAHB-ra
canine: CAY-*nyne*
cantaloupe: CANNT-l-*oap*
cantilever: CANNT-l-*eve*-r, *-evv*-r
cantonment: cun-TONN-munt, cun-TONE-munt
caoutchouc: COW-chook, COO-chook
capricious: ca-PRISH-us, ca-PREESH-us
capsule: CAPP-*soole,* CAPPS-l
Caracas: ca-RACK-us, ca-RAHK-us
caramel: CAIR-um-l, ÷CAHRM-l
carbine: CARB-*eyne,* CARB-*een*
carburetor: CARB-a-*rate*-r, CARB-ya-
Caribbean: *cair*-ub-EE-un, ca-RIBB-ee-un
caricature: CAIR-a-ca-*choor,* -ca-cher
carillon: CAIR-ul-*onn*
carmine: CARM-un, CARM-*eyne*
carnauba: (wax) kar-NAW-ba, *kar*-na-OO-ba, kar-NOW-ba, kar-NOO-ba
Carnegie: CAHRN-a-gee, ker-NEGG-ee, cahr-NEGG-ee
carrousel: CAIR-a-*sell, -zell*

cashew: CASH-*oo,* ca-SHOO
catastrophe: ca-TASS-tra-fee
catastrophic: *cat*-a-STRAHF-ik
catch(er): KATCH(-r), KETCH(-r)
catchup: KETCH-up, KATCH-up, KATS-up
cater-cornered: CATT-r-CORN-rd, CATT-a-, CATT-ee-.
catsup: KETCH-up, KATCH-up, KATS-up
Caucasian: caw-CAYZH-n, -CAZH-n
cay: (West Indian island) kee
Cayenne pepper: KYE-*enn,* KAY-*enn*
cayuse: KYE-*yooss,* kye-YOOSS
Cecil: SEECE-l; less often in U. S., usually in England, SESS-l
cello: CHELL-oh
Celt: selt, kelt
cement: sim-ENT
centenary: SENT-n-*ehr*-ee, sen-TEN-r-ee
centimeter: SENT-a-*meet*-r, SAHNT-a-
cerebral: sa-REEB-rul, SEHR-a-brul
cerements: SEER-munts, SEHR-a-munts
chaise longue: SHAZE LONG, ÷ SHAZE LOUNJ
chamois: SHAMM-ee
Chantilly: (lace) shan-TILL-ee
chaparral: SHAP-r-AL
chargé d'affaires: SHAHR-zhay-da-FAIR
charivari: (noisemaking) *shiv*-r-EE, SHIV-r-*ee*
chartreuse: shar-TROOS, -TROOZ
chassis: SHASS-ee, CHASS-ee
chastisement: chas-TIZE-munt, CHAS-tiz-munt
chasuble: CHASS-ab-l, CHAZZ-
chauffeur: SHOAF-r, shoaf-URR
chenille: sha-NEEL
Chiang Kai-shek: jee-AHNG KYE-SHEKK
Chicago: sha-KAHG-o, sha-KAWG-o
chicanery: shi-KANE-r-ee
chiffon: shif-ONN, SHIFF-*onn*
chignon: SHEEN-*yonn*
chimerical: kye-MEHR-uk-l, kye-MEAR-, ka-
chimpanzee: *chim-pan*-ZEE, *shim-;* chim-PAN-zee, shim-
chiropodist: kuh-ROPP-ud-ist, ÷ shuh-
chivalric: shiv-AL-rik, SHIVV-ul-rik
choleric: kuh-LEHR-ik, KOLL-er-ik
Chopin: SHOW-*pan*
Chou En-Lai: DZUH ENN-LYE
chou paste: shoo
cicatrix: SICK-a-*tricks,* si-KAY-tricks
cicerone: *cheech*-r-OAN-ee, *siss*-r-
cigarette: SIG-r-ETT, *-ett*
clandestine: clan-DEST-n, CLAN-dus-*tyne*
clangor: CLANG-r, CLANG-ger
clapboard: CLABB-*oard,* -urd
Cleopatra: *klee*-a-PAT-ra, -PAY-tra, -PAH-tra
clientele: KLY-un-TELL
clique: cleek, click
cloche: cloash
cloture: CLOACH-r
coadjutor: *coh*-a-JOOT-r
coax: (persuade) cokes; (coaxial cable) coh-AKS, COH-*aks*
cocaine: koh-KANE
-cocci, -coccus: COCK-*sye* but COCK-us
cochineal: COTCH-n-*eel,* COACH-
codify: CODD-a-*fye,* CODE-
cognizance: COG-niz-uns
coiffure: kwah-FURE, KWAHF-*ure*
colander: CULL-un-der, COLL-
Colombia: cul-UMM-bee-a
Colorado: *kahl*-a-RADD-o, -RODD-o
column: KAHL-um
columnist: KAHL-um-ist, -um-nist
combat: (noun) COMM-*batt;* (verb) cum-BATT, COMM-*batt*
combatant: cum-BATT-nt, COMM-ba-tunt
comely: CUMM-lee
comfortable: CUMF-tub-l, CUMM-fert-ub-l
Cominform: COMM-in-*form*
communal: cum-YOON-l, COMM-yun-l
communiqué: cum-YOON-a-KAY
comparable: COMM-prub-l, COMM-per-ub-l, ÷ cum-PARE-ub-l
composite: cum-POZZ-ut, British COMP-a-zit
comptroller: cun-TROLE-r, *comp*-TROLE-r
comrade: COMM-*radd,* -rud
concerto: cun-CHEHRT-oh
conch: conk, contch
concord: CONN-*cord;* CONK-rd prevails for some places so named
concubinage: cun-CUBE-n-idj
condolence: cun-DOE-luns, CONN-da-luns
conduit: CONN-doo-it, CONN-dit
confiscate: CONN-fis-*keight,* cun-FIS-*keight*
confrere: CONN-*frehr*
congeries: cun-JEER-eez, CONN-jer-eez
conjure up or with: CUNN-jer, CONN-jer
connoisseur: CONN-a-SURR
consignee: *conn*-sa-NEE, cun-*sine*-EE
consignor: *conn*-sa-NOR, cun-*sine*-OR
constable: CONN-stub-l, CUNN-
consummate: (verb) CONN-sum-*eight;* (adj.) cun-SUMM-ut
contemplative: cun-TEMP-la-tiv, CONN-tum-*plate*-iv
contractor: (builder) CONN-*track*-r, cun-TRACKT-r
contrary: (opposite) CONN-*trehr*-ee; (stubborn) also cun-TREHR-ee
controversial: *con*-tra-VURR-shul, -VURR-see-ul
contumacy: cun-TOOM-a-see, CONN-ta-ma-see
contumely: cun-TOOM-l-ee, CONN-ta-*mee*-lee
conversant: CONN-ver-sunt, cun-VERSE-unt
Copenhagen: *cope*-n-HAY-gun, -HAH-gun
copra: COAP-ra
coral: CAWR-ul, CAHR-ul
corduroy: CORD-a-*roy*
corollary: COR-ul-*ehr*-ee (cur-OLL-a-ree is British)
corral: cur-AL
corrugate: COR-a-*gate,* COR-ya-*gate,* CAHR-
corsage: cawr-SAHZH, CAWR-*sahzh*
Coty, René: cut-TEE
coup: coo
coupé: coo-PAY, informally coop (rhymes with *group*)
coupon: CUE-*ponn,* COO-*ponn*
Courant: (Hartford newspaper) Hartford people usually say CURR-unt or COOR-unt; the paper's editorial writers prefer coo-RAHNT
courier: CURR-ee-er, COOR-
couturier: coo-TOOR-ee-*eigh,* -ee-er
covert: CUVV-rt; the cloth is also called COAV-rt or COVV-rt
coxswain: COCKS-n
coyote: KYE-*oat,* kye-OAT-ee
crèche: cresh, craysh
credenza: cree-DENZ-a
creme de cacao: CREAM da COKE-oh, or something approaching the French

creme de menthe: CREAM da MINT, or something approaching the French
cretonne: cree-TONN, CREE-*tonn*
cuckoo: COOK-oo, COO-coo
cuisine: cwee-ZEEN
culinary: CULL-a-*nehr*-ee, CUE-la-
cum laude: *cum* LAWD-ee, *coom* LOUD-ee
cupboard: CUBB-rd
cupola: CUPE-a-la, -a-*loe*
curaçao: CURE-a-*soe*
curator: cure-EIGHT-r
Curie: cure-EE
cushaw: COO-*shaw*, coo-SHAW
cycle: SIKE-l
cyclical: SICK-lik-l, SIKE-lik-l
cynosure: SYNE-a-*shure* (don't confuse with *sinecure*, SYNE-a-*cure*)

dachshund: DAHKS-*hoont*
dahlia: DAL-ya, DAHL-ya
daiquiri: DIKE-r-ee, -EE
dais: DAY-us, dace
Dali: (Salvador) The Spanish is dah-LEE
data: DATE-a, DATT-a, DAHT-a
debacle: da-BAHK-l, da-BACK-l
debauch: dee-BAWTCH, -BOTCH
debouch: dee-BOOSH
debris: da-BREE, DAY-*bree*
Debussy: DEB-ya-SEE, da-BEW-see
debut: DAY-*bew*, day-BEW
debutante: DEB-ya-TAHNT, -TANT
decade: DECK-*aid*
decadent: dee-CADE-nt, DECK-a-dunt
decal: DEE-*cal*, dee-CAL, DECK-l
decisive: dee-SISE-iv, -SIZE-iv
décolleté: DAY-*coll*-a-TAY
décor: day-CORR
decorous: DECK-r-us, dee-CORE-us
decoy: dee-COY, DEE-*coy*
defalcation: *dee-fal*-CASHE-n, *dee-fawl-*, *deff*-l-
de Gaulle, Charles: SHARL dug-OAL
deficit: DEFF-a-sit
Delhi: (India) DELL-ee (certain places in North America are DELL-*high*)
deluge: DELL-*yuge*, ÷ DELL-*ooge*
de luxe: da LOOKS, LUCKS, LUKES
demagogic: *demm*-a-GODJ-ik, -GOGG-ik
demagogy: DEMM-a-*godj*-ee, -*gogg*-ee
demesne: dee-MAIN, -MEEN
demonstrable: dum-ONN-strub-l, DEMM-un-strub-l
demonstrate: DEMM-un-*strait*
dengue: DENG-ghee, DENGH-ee, DENG-gew
denier: (of nylon, for instance) DENN-yer
depot: DEE-*poh*
derby: DURR-bee
derisive: der-EYE-siv, -ziv, -IZZ-iv
derrière: DEHR-ee-EHR
Des Moines: da MOIN
desperado: *dess*-per-AID-o, -AHD-o
despicable: des-PICK-ub-l, DESS-pick-ub-l
desuetude: DESS-wa-*tood*e
desultory: DESS-l-*tore*-ee, DEZZ-
detail: DEE-*tale*, dee-TALE
deterrent: dee-TURR-unt
Detroit: dee-TROIT
de Valera, Eamon: EIGH-mun *devv*-l-AIR-a
devotee: DEVV-a-TEE
diabetes: *dye*-a-BEET-us, -BEET-eez
diamond: DYME-und, DYE-a-mund
dictator: DICK-*tate*-r, dick-TATE-r
diesel: DEEZ-l, DEES-l
digestion: didj-ESS-chun, dye-JESS-
digitalis: *didj*-a-TAL-us
dilettante: DILL-a-TANT, -TAHNT, -TANT-ee, TAHNT-ee
diminution: *dimm*-a-NOOSH-n (not *dimm*-ya-NISH-n)
diocesan: dye-OSS-a-sun, -zun
diocese: DYE-a-*seece*, -suss
dioceses: DYE-a-*seece*-uz, -suss-uz, ÷ -*seeze*
diphtheria, diphthong: The *ph* is pronounced f or p
direct: dur-EKT, dye-REKT
dirigible: DEAR-a-jub-l, dur-IDJ-ub-l
discretion: dis-CRESH-n
dishabille: DISS-a-BEEL
dispersion: dis-PURZH-n, -PURSH-n
disputable: dis-PUTE-ub-l, DISS-pya-tub-l
dissoluble: diss-OL-yub-l
distillate: DIST-l-*eight*, diss-TILL-ut
distrait: diss-TRAY
diva: DEEV-a
divan: (couch) DYE-*vann*, dye-VANN
diverge: dye-VURDJ, duv-URDJ
divers: DIVE-rz
diverse: dye-VURCE, DYE-*vurce*, duv-URCE
divert: dye-VURT, duv-URT
divest: dye-VEST, duv-EST
divisive: div-EYE-siv, -ziv, -IZZ-iv
divorcee: duv-*ore*-SEE, -SAY
docile: DOSS-l, DOSS-*yle* (DOE-*syle* is chiefly British)
doldrums: DOLL-drumz
domicile: DOMM-us-l, -a-*syle*
donkey: DONK-ee, DUNK-ee
Don Quixote: DONN kee-HOAT-ee, QUICKS-ut
dos-à-dos: DOZE-a-DOE; in square dancing, DOCE-ee-DOE
dour: rhymes with *hour*, less often with *tour*
drama: DRAHM-a, DRAMM-a
dramatis personae: DRAMM-a-tis pur-SOAN-ee
dramatist: DRAMM-a-tist, DRAHM-
dromedary: DROMM-a-*dehr*-ee, DRUMM-
drought: drout, drouth
drouth: drouth, drout
drowned: dround (not DROUND-ud)
Dumas: (novelist) DOO-*mah*, doo-MAH
Duclos, Jacques: du-CLOE
duodenum: *doo*-a-DEAN-um, doo-ODD-n-um
Dvořak: da-VORR-*zhahk*, VORR-*zhahk*
dynasty: DINE-us-tee

ebullient: ee-BUL-yunt, ee-BOOL-yunt
echelon: ESH-a-*lonn*
éclair: EIGH-*clare*, eigh-CLARE
economics: *eke*-n-OMM-ics, *eck*-n- (about equally common)
ecru: AKE-roo, ECK-roo
eczema: ig-ZEEM-a, EKS-m-a, EGZ-m-a
Edam: EED-m, EE-*dam*
edict: EE-*dikt*
effort: EFF-rt, EFF-*awrt*
egotism: EE-go-*tizz*-m, EGG-o-
egret: ee-GRETT, EE-*grett*, EGG-rut
Eiffel Tower: IFE-l
eighth: aytth, ÷ ayth
Einaudi, Luigi: eigh-NOW-dee
Eire: EIGH-ra, -ree
either: EETHE-r, NEETHE-r are strangers to no part of the U. S.; EYTHE-r, NEYTHE-r are
Eleanor: ELL-a-ner

electoral: il-ECKT-r-ul
electricity: ee-*leck*-TRISS-ut-ee
eleemosynary: *ell*-um-OSS-n-*ehr*-ee
elegiac: *ell*-a-JYE-ack, il-EEDJ-ee-*ack*
elephantine: *ell*-a-FAN-*tyne*, -FAN-*teen*, -FANT-n
eleven: ul-EVV-n, ul-EBB-m; in rapid speech the first syllable may be lost
elite: eigh-LEET
elixir: il-ICKS-r
elongate: ee-LAHNG-*gate*, -LAWNG-*gate*
Elysian: il-IZH-n
emendation: *ee-men*-DAYSH-n, *em*-un-
émigré: EMM-a-GRAY
employee: *emm-ploi*-EE, im-PLOI-*ee*
encore: AHN-*core*, AHNG-
encyclical: en-SICK-lik-l, -SIKE-lik-l
endive: ENN-*dyve*
ennui: AHN-WEE
en route: ahn ROOT, enn, inn
ensemble: AHN-SAHM-bul
ensign: (officer) ENN-sn, (flag) also ENN-*syne*
entente: AHN-TAHNT
entrails: ENN-trulz
entree: AHN-*tray*, ahn-TRAY
entrepreneur: AHN-tra-pra-NURR, -pa-NURR
envelope: ENN-vul-*ope*, AHN-
envoy: ENN-*voy*, AHN-*voy*
epaulet: EPP-l-ETT
ephedrine: if-EDD-rin, EFF-a-*dreen*
epicurean: *epp*-a-cure-EE-un
epitome: ee-PITT-m-ee
epizootic: *epp*-a-zoh-OTT-ik
epoch: EPP-uk, EPP-*ock*, EE-*pock*
equator: ee-KWATE-r, EE-*kwate*-r
equine: EE-*kwyne*
equipage: ECK-wa-pidj
equitable: ECK-wut-ub-l
era: EAR-a, EE-ra
err: urr, ehr
errant: EHR-unt
error: EHR-er
ersatz: EHR-*zahts*, ehr-ZAHTS
erudite: EHR-ya-*dyte*, EHR-a-*dyte*
erysipelas: *ehr*-a-SIPP-l-us, *ear*-
espalier: ess-PAL-yer
espionage: ESS-pee-a-NAHZH, -NAHDJ, -nidj
esplanade: ESS-pla-*nahd*, -*naid*
espouse: see SPOUSE
esquire: ESS-*kwyre*, es-KWYRE
etc.: un(d) SO *foarth*, et SETT-r-a, et SETT-ra
Eustachian: yoo-STAYSH-n, -STAKE-ee-un
evangelical: *ee-vann*-JELL-ik-l, *evv*-n-JELL-
evening: (time of day) EEV-ning; (making even) EEV-n-ing, EEV-ning
evidently: EVV-a-*dent*-lee, -dunt-lee, -DENT-lee
evolution: *evv*- (*eev*- is chiefly British)
ewe: yew; by sheep raisers also yoh
ex cathedra: *eks* ca-THEDE-ra, eks CATH-a-dra
excretory: EKS-cra-*toar*-ee (iks-CRETE-r-ee is chiefly British)
exculpate: EKS-cul-*pate*, eks-CULL-pate
executive: ig-ZEKK-ya-tiv, ÷ -ZEKK-a-tiv
exemplary: ig-ZEMP-ler-ee, EGZ-m-*plehr*-ee
exigency: EKS-a-jun-see (ig-ZIDJ-n-see is chiefly British)
exile: EGZ-*yle*, EKS-
exotic: egz-OTT-ik, eks-
experiment: iks-PEHR-a-ment, ÷ iks-PEAR-
expert: EKS-*purrt* or, more often for adj. than noun, eks-PURRT
explicable: EKS-plik-ub-l, eks-PLIK-ub-l
exploit: EKS-*ploit* or, more often for verb than noun, eks-PLOIT
exposé: EKS-po-ZAY
exquisite: EKS-kwa-zit, eks-KWIZZ-ut
extol: eks-TOAL, -TOL
extraordinary: eks-TRORD-n-*ehr*-ee
exude: eg-ZOOD, eks-OOD

façade: fus-AHD
facet: FASS-ut
facile: FASS-l
Fahrenheit: FAIR-un-*hyte*, FAHR-
faille: file
Falange: (Spanish) ful-AHNG-hay
falcon: FAWL-cun, FAL-cun, FAW-cun
fantasia: fann-TAY-zha, *fant*-a-ZEE-a
farina: fer-EEN-a
fascist: FASH-ist
Fatima: (cigarette) fa-TEEM-a; (Mohammed's daughter, Bluebeard's wife) fa-TEEM-a, FAT-m-a; (place in Portugal) FAT-m-a
faux pas: FOE PAH
February: FEBB-a-*wehr*-ee, FEBB-yu-*ehr*-ee, FEBB-roo-*ehr*-ee
fecund: FECK-und, FEEK-und
ferrule: FEHR-ul, -ool
fete: feight
fetish: FEET-ish (the British apparently often say FETT-ish)
fiancé(e): FEE-ahn-SAY, fee-AHN-say
fidelity: fye-DELL-ut-ee, fud-ELL- (but the fye- pronunciation is rare in *high-fidelity*)
figure: FIGG-yer (FIGG-er, though the only common British pronunciation, is widely regarded as substandard in the U. S.)
filet: fil-EIGH, FILL-eigh, FILL-ee
filet mignon: FILL-eigh, or FILL-ee, meen-YOH (with -YOH pronounced through the nose)
filet of sole: FILL-ee uv SOLE
finale: fin-AHL-ee, -AL-ee
finance: FYE-nants, fun-ANTS, fye-NANTS
financial: fye-NANTCH-l, fun-ANTCHL-l
financier: FINN-un-SEER, *fye-nann*-SEER
finesse: fin-ESS
finis: FYE-nis, FINN-is
fiord: fyord, fee-ORD
fission: FISH-n, FIZH-n
flaccid: FLAK-sid, ÷ FLAS-id
flagrant: FLAY-grunt
fluoroscope: FLOOR-a-*skope* (FLOOR- rhymes with TOUR), FLOO-er-a-*skope*
forbade: -BADD, -BAYED
forehead: FAWR-ud, FAHR-ud, FOAR-*hedd*
formidable: FORM-ud-ub-l, fer-MIDD-ub-l
fortnight: FORT-*nite*, -nut
fortune: FORCH-n
foyer: FOI-er, FOI-*yay*, FWAH-*yay*
fracas: FRAY-kus, FRACK-us
fragile: FRADJ-l
frequent: (verb) free-KWENT, ÷ FREE-kwunt
frontier: FRUN-TEER, FRON-
frontispiece: FRUNT-us-*peece*, FRONT-
fungi: FUN-*jye*, ÷ FUNG-*guy*
futile: FUTE-l

gala: GALE-a, GAL-a
Galapagos: gul-AHP-a-guss

gallant: (brave) GAL-unt; (lady's man) more often gul-ANT or gul-AHNT
gangrene: GANG-GREEN, GAN-GREEN
gape: gayp, gapp
garage: ger-AHDJ, -AHZH
Garand: (rifle) GAIR-und, gur-AND
garrulous: GAIR-ya-lus, GAIR-a-
gaseous: GASS-ee-us, GASH-us (the British usually say GAZE-ee-us)
genealogy: *jenn*-ee-AL-a-jee, ÷ -OLL-a-jee
genuine: JENN-ya-wun, ÷ *-wyne*
gerrymander: GHEHR-ee-MAND-r, JEHR-ee-
gherkin: GHURR-kin
gibber(ish): JIBB-r(-ish), GHIBB-r(-ish)
Gila monster: HEEL-a
gimmick: GHIMM-ick
glacier: GLAYSH-r (the British usually say GLASS-ee-ur)
gladiolus: *glad*-ee-OAL-us, gla-DYE-a-lus
Goethe: GATE-ee (or as German)
golf: gahlf, gahf, gawf, gawlf
gondola: GONND-l-a, ÷ gonn-DOAL-a
gooseberry: GOOCE-*behr*-ee, GOOZE- (the last is less common in U. S. than in England)
gourmet: GOOR-*may*
government: GUVV-ur(n)-munt, GUBB-m-unt
governor: GUVV-n-ur (the first *r* is seldom pronounced)
granary: GRAIN-r-ee, GRANN-
gratis: GRATE-is, GRATT-is
grease: (verb) greece, greeze
greasy: GREECE-ee, GREEZE-ee
grievous: GREEV-us (not GREE-vee-us)
grimace: GRIMM-us, grim-ACE
Gromyko, Andrei: groe-MEE-koe
grosgrain: GROE-*grane*
guarantee: GAIR-un-TEE (GAHR- is regional)
gubernatorial: *gube*-r-na-TORE-ee-ul, *goob*-r-
Guiana: ghee-AHN-a, -ANN-a
guimpe: ghimp, gamp
Guinea: GHINN-ee
gynecology: *jinn*-a-COLL-a-jee, *ghine*-a-, *jyne*-a-

Haakon: HAWK-n
habitué: ha-BITCH-a-WAY
Haile Selassie: HIGH-lee sul-ASS-ee
halibut: HAL-a-but, HOLL-
hallowed: in the Lord's Prayer, often 3 syllables
Halloween: HAL-a-WEEN, HOLL-
Hammarskjöld, Dag: HAMM-r-*shulld*
handkerchief: HANK-r-chif, *-chief*
hangar: HANG-r, HANG-*ahr*
harass: ha-RASS, HARE-us
hauteur: hoe-TURR, haw-
Hawaii: ha-WYE-ee, ha-WAH-ee, ha-WAW-ee, -ya
hegemony: hee-JEMM-a-nee, HEDJ-m-un-ee
height: hyte, ÷hightth
heinous: HANE-us (not HEEN-ee-us or HANE-ee-us)
Helena: (Arkansas, Montana) HELL-a-na; but *St. Helena Island* is *saint*-l-EEN-a
helicopter: HELL-a-*copt*-r
herb: urb, hurb
Herculean: hur-CUE-lee-un, *hurk*-ya-LEE-un
Hereford: (cattle) HUR-ferd
heretic: HEHR-a-*tic*
heretical: hur-ETT-ik-l
hermaphrodite: her-MAFF-ro-*dyte* (not MORF-a-*dyte*)
hero: HEE-*roe*, HEAR-*oe*
heroine: HEHR-a-win
heroism: HEHR-o-*izz*-m
hiccough: HICK-up
hilarious: hil-AIR-ee-us, high-LAIR-
Himalaya: *him*-a-LEIGH-a, him-AHL-ya, him-AHL-a-ya
Hirohito: *hee*-roe-HEE-toe
Hiroshima: *hear*-o-SHEEM-a, hear-OSH-a-ma
Ho Chi Minh: HOE CHEE MEAN
Holstein: (cattle) HOAL-*steen*, *-styne*
homicide: HOMM-a-*syde*, HOME-
Homo sapiens: HOE-moe SAY-pee-unz, *-enz*, SAPP-ee-
Honolulu: *honn*-l-OO-*loo*, *hone*-l-
hors de combat: ORR (or HORR) duh COMM-*batt*
hors d'oeuvres: ORR DURV(Z), ORR DUV(Z)
hosiery: HOE-zher-ee
hospitable: hoss-PITT-ub-l, HOSS-*pitt*-
hostage: HOSS-tidj
hostile: HOSST-l
Houston: (Texas city) HUCE-tun; (N. Y. C. street, Ga. county) HOUCE-tun
hover: HUVV-r, HOVV-r
human: HUME-un; esp. by urban speakers, also YUME-un
humble: HUMM-bul, UMM-bul
humor: HUME-r; esp. by urban speakers, also YUME-r
hurricane: HURR-a-*caine*, HURR-ik-n
hybrid: HIBE-rid
hydrangea: hye-DRAIN-ja, -DRANN-ja
hygiene: HYE-*jean*
hygienic: hye-JEAN-ik, *hye*-jee-ENN-ik
hyperbole: hye-PURB-l-ee
hysteria: hiss-TEER-ee-a, -TEHR-

identical, -tity: eye-DENN-, id-ENN-
ideology: *eye*-dee-OLL-a-jee, *idd*-ee-
ignominy: IGG-num-*inn*-ee
ignoramus: *igg*-ner-AIM-us, -AMM-us
Illini: il-EYE-*nye*
Illinois: *ill*-a-NOY
illustrate: ILL-us-*trate*, much less often il-USS-*trate*
impasse: IMM-*pass*, imm-PASS
impetigo: *imm*-pa-TYE-goe, -TEE-goe
impious: IMM-PYE-us, IMP-ee-us
implacable: im-PLAKE-ub-l, -PLACK-ub-l
improvisation: *imm-provv*-a-ZAYSH-n, *imm* pra-va-
inaugurate: in-AWG-yur-*ate*, ÷ -AWG-r-*ate*
inchoate: in-KOE-it, INN-koe-*eight*
incognito: in-COG-na-*toe*, ÷ *in*-cog-NEE-toe
incomparable: see COMPARABLE
inculcate: in-CUL-*cate*, INN-cul-*cate*
indefatigable: INN-dee-FATT-ig-ub-l
indisputable: see DISPUTABLE
indissoluble: see DISSOLUBLE
inexorable: in-EKS-r-ub-l, -EGZ-r-
inexplicable: see EXPLICABLE
infantile: IN-fun-*tyle*, -till, *-teel*
ingenious: in-JEAN-yuss
ingenue: ANN-ja-*noo*
ingenuous: in-JENN-ya-wuss
inherent: in-HEAR-unt, in-HEHR-unt
inimical: in-IMM-ik-l
initiative: in-ISH-a-tiv, in-ISH-ee-a-tiv

inquiry: in-KWIRE-ee, IN-*kwire*-ee, IN-kwur-ee
insular: INS-l-ur, IN-shul-ur
integral: IN-tee-grul, in-TEG-rul, in-TEE-grul
intelligentsia: in-*tell*-a-JENTS-ee-a, -GHENTS-ee-a
internecine: *int*-r-NEECE-*yne*, -NEECE-n, -NESS-*yne*, -NESS-n
interstices: in-TURR-sta-suz (not *-seez*)
inundate: IN-un-*date*, in-UN-*date*
invalid: (ailing) IN-vu-lid, (not valid) in-VAL-id
inveigle: in-VEEG-l, -VAGUE-l
iodine: EYE-ud-*yne*, -ud-n, -ud-*een*
Iowa: EYE-a-wuh, -a-*way* (not eye-OH-a)
Iran: ir-AHN, ir-ANN, eye-RANN
Iranian: ir-ANE-ee-un, eye-RANE-ee-un, ir-AHN-ee-un
Irene: eye-REEN (the British say eye-REEN-ee)
irrefutable: see REFUTABLE
irrevocable: see REVOCABLE
Islam: IZZ-*lahm*, IZZ-*lamm*, is-LAHM, is-LAMM
isolate: ICE-l-*ate*, ISS-l-*ate*
Israeli: iz-RALE-ee
Italian: it-TAL-yun (eye-TAL- is humorous or nonstandard)
-itis: (as in *appendicitis*) -ITE-is, occasionally -EET-is

jaguar: JAG-*wahr*
Jekyll: JEEK-l, JECK-l
jocund: JOCK-und, JOKE-und
joust: rhymes with *soused*, less often with *bust*
jowl: rhymes with *howl*, less often with *hole*
jugular: JUGG-yul-r, JOOG-
juvenile: JOOV-n-*yle*, -n-l

ketchup: KETCH-up, KATCH-up, KATS-up
khaki: CACK-ee, COCK-ee
Khrushchev, Nikita: nyee-KEE-ta hroosh-CHAWF
kiln: kill, kiln
kimono: kum-OAN-a
kindergarten: KINN-dur-*gahrt*-n, *-gahrd*-n
Kieffens, Eelco van: AIL-koh vahn KLEFF-nce
kowtow: 1st syllable rhymes with *cow* (less often with *go*), 2d with *cow*

lambaste: lam-BAYST, -BASST
lamentable: LAMM-un-tub-l, lum-ENT-ub-l
languor: LANG-r, LANG-gur
Laniel, Joseph: lann-YELL
Laos: louce (rhymes with *house* noun), LAY-*oss*
lapel: la-PELL
larynx: LAIR-inks (not LAHR-niks)
lasso: LASS-oh (lass-OO is probably nonstandard)
lava: LAHV-a, LAVV-a
legume: LEG-*yoom*, lee-GYOOM
Le Havre: luh HAHV, HAHV-ra, ÷ HARV
leisure: LEEZH-r, LEZH-r
length: leng(k)th, ÷ lenth
Lenin: LENN-in
lever: LEEV-r, LEVV-r
levis: (jeans) LEE-*vyze*
liaison: LEE-a-*zonn*, -ZONN (or *-sonn*, -SONN), lee-AZE-*on*, lee-AZE-n
libertine: LIBB-r-*teen* (*-tyne* is chiefly British)
libido: lib-EYE-doh, -EE-doh
library: LIBE-*rehr*-ee, LIBE-r-ee, LIBE-ree
lichen: LIKE-n
licorice: LICK-rish, LICK-r-ish, -riss, -r-iss
lilac: LILE-uk, *-ack*
lingerie: LAHN-zhur-EE, -AY, LANN-zher-EE, -jur-
liqueur: lic-KURR
literati: *litt*-r-AHT-ee, -EIGH-*tye*
literature: LITT-r-uh-*choor*, -chur, *-tyoor*, LITT-ruh-, LITT-r-cher
loath: (adj.) rhymes with *both*
loathe: (verb) rhymes with *clothe*
loathsome: first part rhymes with *both* or *clothe*
loge: loazh
longevity: lahn-JEVV-a-tee
long-lived: LONG-LYVED, -LIVVD
Los Angeles: loss ANDJ-l-us, ANG-gul-us (the first has been "officially" adopted in Los Angeles)
Louisiana: LOO-uz-ee-ANN-a, luh-WEEZ-ee-, in the state also LOO-zee-ANN-a
Louisville: (Ky.) LOO-ee-*vill*, -eev-l
Louvre: loov, LOO-vruh
lower: (look dark) rhymes with *tower*
luxury: LUKSH-r-ee, LUGZH-r-ee

macabre: ma-CAHB-r, -CAHB-ruh
Mach: mahk
machete: ma-SHETT-ee, ma-SHETT
machination: *mack*-n-AYSH-n
macron: MAY-*kronn*, -krun (MACK- is chiefly British)
madame: usually MADD-um (like *madam*) when preceding a name; elsewhere also mudd-AMM, *madd*-AMM, -AHM
mademoiselle: MADD-um-uz-ELL, MADD-muz-ELL, *mamm*-ZELL
madras: (fabric) MADD-rus, mud-RASS, mud-RAHS
maelstrom: MALE-strum
maestro: MICE-troh, mah-ESS-troh
Magdalene: (Mary) MAGG-dul-*een*, *magg*-dul-EE-nee
Magi: MAY-*jye*
Magsaysay, Ramon: rah-MUNN *mahg*-suss-EYE
Magyar: MAGG-*yahr*, MAHD-*yahr*
maintenance: MAINT-n-unts, MAINT-nunts (not main-TAIN-unts)
Malan, Daniel: mul-AHN
Malenkov: Russian seems to be *mahl*-yun-KOFF
malinger: mul-ING-gur
mañana: mun-YAHN-a, -YANN-a
maniacal: mun-EYE-uk-l
Mao Tse-tung: MOW DZUH DOONG (MOW rhymes with HOW)
maraschino: *mare*-us-KEE-noh, ÷ *mare*-a-SHEE-noh
Mardi gras: MAHR-dee GRAH
margarine: MAHRDJ-r-in, *-een*
Marguerite: MAHRG-r-EET, -yur-EET
marijuana: *mare*-a-WAHN-a, -HWAHN-a
marital: ("of marriage") MARE-ut-l (don't confuse with *martial*, "of war," MAHRSH-l)
Marseilles: MAHR-SAY, -SAILZ
marshmallow: MAHRSH-*mal*-o, *-mel*-o
massacre: MASS-a-ker (not -kree)
mausoleum: *mawce*-l-EE-um
mauve: mohv

medicinal: mud-ISS-n-l
medieval: *mee*-dee-EEV-l, *medd*-ee-
mediocre: *mee*-dee-OAK-r
melee: may-LAY, MAY-lay, mul-AY
membranous: MEMM-brun-us
Menderes, Adnan: ahd-NAHN *mend*-r-ESS
Mendès-France, Pierre: PYAIR *mann-dess*-FRAHNCE
menstruate: MENN-stru-*ate*, ÷ MENN-*strate*
mercantile: MURK-n-*teel*, *-tyle*, -till
mesdames: may-DAHM, -DAMM
mesquite: mus-KEET
messrs.: MESS-urz
metamorphosis: *mett*-um-ORF-us-us, -orr-FOCE-us
-meter: when a vowel precedes (as in *barom-eter, hexameter*), mut-r, except in metric-system terms, in which it is *meet*-r (as in KILL-um-*eet*-r *kilometer*); when no vowel precedes, *meet*-r, as in VOLT-*meet*-r *voltmeter*
migraine: MY-*grane*
minute steak: MINN-it
mirage: mir-AHZH
miscellany: MISS-l-*ane*-ee (miss-ELL-un-ee is British)
mischievous: MISS-chuv-us (not miss-CHEVE-us or miss-CHEVE-ee-us)
misled: MISS-LEDD (not MIZZ-ld)
mobile: (adjective) MOBE-l, MOE-*beel;* (ornament) MOE-*beel*, MOBE-l; MOE-*byle* is infrequent for either in U. S.
Mobile: (Alabama) moe-BEEL
moiré: (adjective: "watered"; verb: "to water"; noun: "watered appearance or fabric") mwah-RAY or morr-AY. For the fabric some consider *moire*, pronounced mwahr or morr, the preferable or the only proper term. Since most English type fonts have no é, one often cannot be sure how many syllables are intended by *moire*.
molecule: MOLL-i-*kewl* (MOHL- is chiefly British)
molester: mo-LEST-r
Molotov: MOLL-uh-*toff*
momentous: mo-MENT-us (not mo-MENCH-us)
monetary: MONN-a-*tehr*-ee, MUNN-
Mongol: MONG-gul
mongrel: MUNG-grul, MONG-
monsieur: mus-YUH
monsignor: monn-SEEN-yur
montage: monn-TAHZH, mun-
Montevideo: *monn*-tuv-id-EIGH-oh, *monn*-tuv-IDD-ee-oh
Monticello: (Jefferson's) *monn*-ti-CHELL-oh
mores: MOAR-eez
Moscow: last syllable rhymes with *how* or *hoe*
motif: moe-TEEF
motorcycle: MOTE-r-*sike*-l (see *bicycle, tricycle*)
Mrs.: MISS-uz, -us; in the South commonly MIZZ-iz, mizz, or (before a given name) miss
Muenster: (cheese) MUNN-stur, MOON- (OO as in *wood*)
mulatto: mull-ATT-oh or -a, mew-LATT-oh
municipal: mew-NISS-up-l
Muñoz Marín, Luis: moon-YAWS mah-REEN
museum: mew-ZEE-um
mustache: muss-TASH, MUSS-*tash*
naked: NAY-kud, ÷ NEKK-ud
napalm: NAY-*pahm*
nape: napp, nayp
naphtha: NAP-tha, NAF-
nascent: NASS-nt, NACE-nt
nauseated: NAWSH-ee-*ayt*-id, NAWZH-ee-, NAWZ-ee-, NAUCE-ee-
Nazi: NAHTS-ee, NATTS-ee, NAHZ-ee, NAZZ-ee
nee: nay
Nehru, Jawaharlal: juh-WAH-hur-*lahl* NEIGH-roo
neither: *see* EITHER
Nenni, Pietro: NANE-nee
nephew: NEFF-yew (NEVV-yew is chiefly British)
Neufchâtel: NOO-sha-TELL
Nevada: nuv-ADD-a, -AHD-a
Newfoundland: NOOF-n-lund, *-land*, -LAND
New Orleans: ORL-ee-unz, ORL-nz (or-LEANZ seldom used there)
niche: nitch
nightingale: NITE-n-*gail*
nomad: NOAM-*add*, NOMM-ud
nomenclature: NOAM-un-*clay*-cher, noe-MENN-cla-*choor*
nonagenarian: *nonn*-a-jun-EHR-ee-un, *noan-*
nonchalant: NONN-shul-unt, -AHNT
Norfolk: NORF-uk, *-awk*
Notre Dame U.: NOAT-er DAME (rhymes with *tame*)
nougat: NOO-gut
nuisance: NOOCE-nts, NOO-us-nts

oasis: oh-ACE-us, OH-us-us
obdurate: OBD-r-ut, obb-DOOR-ut
obeisance: oh-BACE-nts, oh-BEECE-nts
obesity: oh-BESS-ut-ee, -BEECE-
obligatory: ub-LIGG-a-*toar*-ee, OBB-lig-a-
oblique: ub-LEEK, -LIKE (the 2d is the usual military pron.)
oboe: OAB-*oh*
obscenity: ob-SENN-ut-ee, -SEEN-
obscurantist: ob-SCURE-un-tist, *obb*-scure-ANT-ist
octave: OCK-tiv, *-tayve*
octopus: OCK-tup-us
often: OFF-n, OFF-tun
oleomargarine: See MARGARINE
omega: oh-MEGG-a, oh-MEEG-a, oh-MAYG-a
omelet: OMM-lut, OMM-l-ut
orang-outang: oh-RANG-a-*tang*
orchestra: ORK-us-truh
ordeal: OR-DEAL, OR-*deal*
Oregon: ORR-ig-n, -a-*gonn*
orgy: ORDJ-ee
ornery: ORN-r-ee, ORN-ree, ONN-r-ee, ONN-ree
overalls: not -haulz
overt: oh-VURT, OH-*vurt*

Pagliacci: pahl-YATCH-ee, pal-
palaver: pul-AVV-r, -AHV-r
panorama: *pann*-r-AMM-a, -AHM-a
pantheon: PANN-thee-*onn*, -un, pann-THEE-un
Papagos, Alexander: pah-PAH-gawss
papier-maché: PAPE-r-muh-SHAY
paprika: puh-PREEK-a, PAPP-ree-ka
Paraguay: PAIR-a-*gwye*, *-gweigh*
paresis: pur-ECE-is, PARE-us-is
pariah: pur-EYE-a
parliament: PAHRL-um-unt, ÷ -yum-unt

Parmesan: PAHRM-uz-*ann,* -uz-n
partner: PARD-ner is substandard
passé: PASS-AY
pasteurize: PAST-r-*ize,* PASS-chur-
patent: (right) PATT-nt; (clear) PATE-nt; (in "patent leather") PATT-nt in U. S., usually PATE-nt in England
patina: (film) PATT-n-a, ÷ puh-TEEN-a
patio: PAHT-ee-*oh,* PATT-
patriot: PAY-tree-ut (PATT-ree-ut is British)
patronage, -ize: PAY-trun-, PATT-run-
pecan: pee-CANN, -CAHN, PEE-*cann, -cahn*
pekoe: PEE-*koe* (PECK-*oe* is chiefly British but possibly not the usual British pron.)
pellagra: pul-AIG-ra, -AGG-ra
penalize: PEEN-l-*ize,* PENN-
pendulum: PENJ-l-um, PEND-l-um
penicillin: *penn*-a-SILL-un
peninsula: pin-INS-l-a, -IN-shul-a
penult: PEE-*nult*
peon: PEE-un
peony: PEE-un-ee (PINE-ee is dialectal)
percale: pur-KALE, PURR-*kale,* pur-KAL (the last prevails in the South)
percolator: PURK-l-*ate*-r (not PURK-yul-)
per diem: pur DEE-um, DYE-um
peremptory: pur-EMPT-r-ee, -EMPT-ree
perfect: (verb) pur-FEKT, ÷ PURR-fikt
pergola: PURG-l-a, ÷ pur-GOAL-a
permit: (verb) pur-MIT; (noun) PURR-*mit,* pur-MIT
Perón, Juan: per-RAWN
per se: PURR SAY, SEE
persist: pur-SIST, -ZIST
persona non grata: pur-SOAN-a *nonn* GRATE-a, GRAHT-a, GRATT-a
perspiration: *purce*-pur-AYSH-n (not *press*-pur-)
petite: puh-TEET
petit jury: PETT-ee *joor*-ee
pharynx: FAIR-inks (not FAHR-niks)
Phi Beta Kappa: FYE *bate*-a KAPP-a, *beet*-a
philately: fil-ATT-l-ee
Philistine: fil-IST-un, FILL-us-*teen*
phlegm: flemm
phlegmatic: fleg-MATT-ik
photogravure: FOAT-o-gruv-YOOR, -GRAVE-yur
pianist: pee-ANN-ist, PEE-un-ist
pianoforte: pee-ANN-o-FORT-ee, -o-*fort*
picot: PEE-*koe*
pièce de résistance: pee-ESS duh ray-zeece-TAHNCE
Pinay, Antoine: pee-NAY
pince-nez: PANCE-NAY, PINCE-
pincers: PINCH-rz, PINCE-rz
piquant: PEEK-unt, PICK-wunt, PEEK-wunt
pistachio: pis-TASH-ee-*oh,* -TASH-*oh,* pis-TAHSH-
pituitary: pi-TOO-a-*tehr*-ee
pizza: PEET-sa
placard: (noun) PLACK-*ahrd,* -urd; (verb) plac-KAHRD, PLACK-*ahrd*
placate: PLAKE-*ate,* PLACK-*ate*
placer: (mining) PLASS-r
plenary: PLEEN-r-ee, PLENN-
poignant: POIN-yunt, POIN-unt
poinsettia: poin-SETT-ee-a, ÷ -SETT-a
Politburo: po-LITT-*byoor*-o, POLL-it-, POLE-it-
polka: POLE-ka probably more common for the dance, POKE-a in *polka dot*
portentous: porr-TENT-us (not -TENCH-us)
Portuguese: PORCH-a-GHEEZ
positively: POZZ-a-tiv-lee; in sense "emphatically yes," also POZZ-a-TIV-lee
posthumous: POSS-chum-us
potpourri: POE-poo-REE, pott-POOR-ee
Prague: prahg, much less frequently praig
praline: PRAHL-*een*
precedence: pree-SEED-ns, PRESS-ud-uns
precedent: (noun) PRESS-ud-unt
prelude: PRELL-*yood,* PREE-*lood,* ÷ PRELL-*ood,* PRAY-*lood,* PRAYL-*yood*
premature: PREE-ma-TOOR, -CHOOR
premier: (prime minister) prum-EAR, prum-YEHR, PREEM-ee-ur
premiere: prum-YEHR, prum-EAR
preparatory: pree-PAIR-a-*toar*-ee, PREPP-r-a-
presentation: *pree-zen*-TAYSH-n, *prez*-n-, *preez*-n-
president: PREZZ-ud-unt, *-ent,* PREZZ-dunt
prestige: pres-TEEZH, -TEEDJ
pretty: (adjective) PRITT-ee, POORT-ee; (adverb) POORT-ee, PRITT-ee, purt-ee (1st syllable unstressed)
pristine: PRISS-*teen,* -tun, *-tyne*
probably: PROBB-ub-lee, PROBB-lee
probity: PROBE-a-tee, PROBB-
process: PROSS-*ess* (PROE-*sess* is chiefly British)
processes: PROSS-*ess*-iz (not a Latin plural, and hence not PROSS-a-*seez*)
produce: (noun) PRODD-*ooce,* PROAD-*ooce, -yooce*
productivity: *proe-duck*-TIVV-a-tee, *prodd-uck-*
program: PROE-*gramm,* -grum
progress: (noun) PROGG-*ress,* PROGG-riss, (PROAG- is chiefly British)
promenade: PROMM-un-AID, -AHD
promulgate: proe-MULL-*gate,* PROMM-l-*gate*
promulgation: *proe-mull*-GAYSH-n, *promm*-l-
pronunciation: proe-*nunn*-see-AYSH-n, ÷ -she-AYSH-n (the vowel between the two *n*'s in the second syllable is neither spelled nor pronounced *ou*)
propaganda: *propp*-a-GAN-da, *proap*-a-
pro rata: proe RAYT-a, RAHT-a
protégé or protégée: PROAT-a-ZHAY
protein: PROAT-ee-in, PROE-*teen*
protestation: *prott*-us-TAYSH-n, *proat*-us-, *proa-tess-*
protocol: PROAT-a-*cahl, -cawl*
provost: (education official) PROE-vust, PROE-*voast,* PROVV-ust; (in "provost marshal") PROE-*voe*
psychiatry: suh-KYE-a-tree, sye-KYE-
ptomaine: TOE-*mane,* toe-MANE
pueblo: PWEBB-*loe,* pew-EBB-*loe* (the second is the pron. of *Pueblo,* Colorado)
puerile: PEW-er-ul, *-yle*
Puerto Rico: POART-a REEK-o, PWEHRT-a
pulmonary: first syllable rhymes with *full* or *hull*
pumpkin: PUNK-in, PUM-kin
purported: pur-POART-id, PURR-*poart*-id
putt: Rhymes with *nut*
pyramidal: pear-AMM-ud-l

quandary: KWOND-r-ee; kwonn-DAIR-ee, infrequent in U. S., seems to be common in England
quasi: KWAY-*zye,* -zee, *-sye,* -see, KWAH-zee, -see

quay: kee
Queuille, Henri: CUR-yuh (approximate)
quinine: KWYE-*nyne* (the British say kwin-EEN)
quintuplet: kwin-TUPP-lit, kwin-TOOP-lit, KWIN-ta-plit
Quixote, Don: DONN kee-HOAT-ee, DONN KWIK-sut
quoin: coin, kwoin
quoit: kwate, kwoyt
quote: kwoat, ÷ coat

rabies: RABE-eez, ÷ RABB-eez
radish: RADD-ish, ÷ REDD-ish
rapine: RAPP-un
rarebit: RAIR-but
ration: RASH-n, RAYSH-n
rationale: RASH-n-AL, -AHL-ee
Reading: (Pa. & Eng.) REDD-ing
recess: REECE-*ess,* ree-SESS (the verb is more often ree-SESS than the noun)
recluse: ree-CLOOCE, RECK-*looce*
recondite: RECK-un-*dyte,* ree-KONN-*dyte*
recuperate: ree-KYOOP-r-*ate,* ÷ -KOOP-
refutable: ree-FUTE-ub-l, REF-yut-ub-l
regime: ree-ZHEEM, ray-
relevant: RELL-uv-unt (not REVV-l-unt)
remonstrate: ree-MONN-*strate*
renaissance: RENN-a-ZAHNCE, -SAHNCE, ree-NACE-nce (the last is probably rare for the Renaissance that began in the 14th century)
rendezvous: singular RAHN-duv-OO, plural -OOZE
renege: ree-NIGG, -NEEG
reparable: REPP-r-ub-l
repercussion: *reep*-r-KUSH-n, *repp*-r- (KUSH rhymes with *mush*)
repertoire: REPP-u(r)-*twahr, -tworr*
reprise: (music) ruh-PREEZ
requiem: RECK-wee-um, REAK-
research: REE-*surtch,* ree-SURTCH
reservoir: REZZ-u(r)-*vorr, -vwahr, -vworr,* ÷ *-voy*
resources: REE-*soarce*-iz, ree-SOARCE-iz, ree-ZOARCE-iz
respiratory: ree-SPIRE-a-*toar*-ee, RESP-r-a-
respite: RESS-pit, *-pyte,* ree-SPYTE
restaurant: REST-r-unt, *-ahnt*
résumé: REZZ-m-EIGH
retro-: RETT-ro, *rarely* REE-tro
reveille: REVV-l-ee
revocable: REV-uk-ub-l, ree-VOKE-ub-l
revolt: ree-VOALT (ree-VAWLT also occurs but is not widespread)
Reykjavik: RAKE-yah-*veek*
Rhee, Syngman: SING-mun REE
ribald: RIBB-ld (but Browning rhymed it with *piebald* PYE-*bawld*)
ricochet: RICK-a-SHAY
rigmarole: frequently so spelled but usually pronounced RIGG-a-ma-*roal*
rigor mortis: RIGG-r MAWRT-is
rinse: rince (rence, rench, rinch, though widespread, are usually considered dialectal or substandard)
Rio de Janeiro: REE-o *day* (or *dee*) jun-EHR-o, -EAR-o, zhun-
Rio Grande: REE-o (or REE-a) GRAND (less often GRAND-ee), RYE-o (or RYE-a) GRAND
rise: (noun) ryze (ryce is a sporadic pron. considered by most persons artificial)
risqué: riss-KAY
Riviera: *rivv*-ee-EHR-a
robot: ROBE-ut, ROBE-*ott,* ROBB-ut
robust: roe-BUST, ROE-*bust,* ROE-bust
rodeo: ROE-dee-*oh,* much less often roe-DAY-oh
rotogravure: ROAT-o-gruv-YOOR, -GRAVE-yur
route: though there seem to be more Americans who rhyme this with *doubt* than with *hoot,* many of the latter believe that theirs is the only pron. suitable for an educated person
ruckus: RUCK-us, ROO-kus

Saar: ZAHR
sabotage: SABB-a-TAHZH, -TAHDJ
sacrifice: SACK-ruf-*yce,* less often -iss
sacrilegious: ÷ *sack*-rul-IDJ-us, -EEDJ-us
sacroiliac: SACK-ro-ILL-ee-*ack,* SAY-cro-
sadism: SADE-*iz*-um, SADD-, SAHD-
safari: suf-AHR-ee, -AIR-ee
saga: SAHG-a
sail: as the second element in compounds, as *mainsail, topsail,* pronounced -sl by seafarers
Saint Helena: (Island) see HELENA
St. Laurent, L. S.: *sann* law-RAHN (the *nn* and N merely to indicate that the preceding vowel is nasal)
saith: seth, SAY-ith
Salazar, A. de O.: *sal*-uz-AHR
salmon: SAMM-un
salon: sul-ONN
salve: (ointment) savv, sahv; (salvage) rhymes with *valve*
Santa Claus: SANT-a *klawz,* ÷ SANT-ee
sarsaparilla: *sasp*-r-ILL-a, *sarsp-*
satiety: suh-TYE-a-tee
satyr: SATT-r, SATE-r
Saud, ibn: sah-OOD, SOWD (2d rhymes with LOUD)
Saudi Arabia: sah-OOD-ee, SOWD-ee
savant: suv-AHNT, or with full French pronunciation
scallop: SKOL-up, SKAL-up
Scelba, Mario: SHELL-bah
scenario: sun-AIR-ee-*oh,* -AHR-
scenic: SEEN-ik, SENN-ik
Scheherazade: shuh-HEHR-uz-AHD, -AHD-uh
Schiaparelli: *skapp*-r-ELL-ee, *skyahp*-r-
schism: SIZZ-m
schist: shist
schizophrenia: *skizz*-a-FREEN-ee-a, *skits-*
scintillate: SINT-l-*eight*
scion: SYE-un
secretive: see-KREET-iv, SEE-krit-iv (the suggestion of *secrete,* "exude," in see-KREET-iv is abhorrent to many)
semi-: SEMM-ee, SEMM-*eye*
senile: SEEN-*yle,* less often SENN-*yle*
sesame: SESS-um-ee
short-lived: SHORT-LYVED, -LIVVD
simultaneous: *sime*-l-TANE-ee-us, *simm*-l-
sinecure: SYNE-a-*cure* (don't confuse with *cynosure* SYNE-a-*shure*)
Sioux: soo
siren: SIRE-un
sirup: ÷ SURR-up, SEAR-up
ski: skee (the British seem to prefer "shee")
Slav: slavv, slahv
sleazy: SLEEZ-ee, SLAZE-ee

sloth: sloath, slawth
slough: (castoff skin) sluff; (miry spot) rhymes with *who* or, esp. in New England, with *how;* (in "Slough of Despond") rhymes with *how* or *who*
smorgasbord: SMORR-gus-*board*
snafu: snaff-OO
sociology: *soe*-shee-AHL-a-jee, *soe*-see-
sojourn: (noun) usu. SOE-*jurn;* (verb) usu. soe-JURN (the British commonly say SODJ-*urn* for both)
solace: SAHL-us
solder: SODD-r
selon: SOE-lun
sonorous: sun-OAR-us, less often SONN-r-us
soot: rhymes with *foot* or ÷ *cut* or *boot*
soporific: *sopp*-r-IFF-ik, *soap*-r-
sotto voce: SOTT-oe VOE-chee
sovereign: SOVV-urn, SOVV-run, SOVV-ur-un, SUVV-
Soviet: SOE-vee-*et,* -ut, SOVV-ee-*et,* -ut
Spaak, Paul Henri: SPAHK
spayed: spade (not SPADE-ud)
sphinx: sfinks (not spinks)
spinet: SPINN-it, spin-ETT
Spokane: spoe-KANN
spouse: rhymes with *louse,* much less often with *brows;* but *espouse* rhymes with *brows*
squalor: SKWAHL-r, SKWALE-r
stalactite: stul-ACK-*tyte,* STAL-uk-*tyte*
stalagmite: stul-AGG-*myte,* STAL-ug-*myte*
Stalin: STAHL-in, STAL-in, *-een*
status: STATE-us, STATT-us; in New England, especially, also STAHT-us
-stein: (in proper names) *styne* or *steen; steen* probably prevails in "Holstein" (cattle) and "Gravenstein" (apple)
stevedore: STEEV-a-*doar*
stirrup: STURR-up, STEAR-up
stomach: STUMM-uk, ÷ -ik
strafe: strayf
stratosphere: STRATT-us-*fear*
Strauss, Lewis: strawz
strength: streng(k)th, ÷ strenth
strychnine: STRIK-nin, *-nyne, -neen*
suave: swahv, much less often swayv
suavity: SWAHV-a-tee, SWAVV-
subpoena: suh-PEEN-a (-PEEN-ee is common but usually avoided in formal speech)
succinct: suk-SINKT, ÷ sus-INKT
Suffolk: SUFF-uk, *-awk*
suggest: sug-JEST, sudj-EST
suite: sweet; (of furniture) also ÷ sute
sumac: SHOO-*mack,* SOO-
surrealism: sur-REE-ul-*izz*-m
surveillance: sur-VALE-nts, -VALE-yunts
suspect: (adj.) more often sus-PEKT; (noun) more often SUSS-*pekt*
svelte: sfelt
swastika: SWOSS-tik-a, ÷ swoss-TEEK-a
swathe: usually rhymes with *-oth-* in *bother;* the rhyme with *bathe* that dictionaries usually give seems to be quite rare
syringe: sur-INDJ, much less often SEAR-indj
syrup: *see* SIRUP

table d'hôte: TAHB-l DOAT, TABB-l
Tahoe: TAH-*hoe*
Taj Mahal: TAHDJ muh-HAHL, TAHZH
talesman: TAILZ-mun, TAIL-eez-mun
talisman: TAL-uz-mun, -us-
tarantula: tur-ANTCH-l-a
tarpaulin: tahr-PAWL-un, TAHRP-l-un, ÷ tahr-POLE-yun
tassel: TASS-l, dialectal TOSS-l
taximeter: TACKS-ee-*meet*-r
tedious: TEED-ee-us, TEEDJ-us
Teheran: *tay*-uh-RAHN
telegram: TELL-a-*gram;* also -grum in the South
tenet: TENN-ut (TEEN- in chiefly British)
Terpsichorean: *turp*-sick-r-EE-un, turp-*sick*-r-
Terre Haute: TEHR-a HOAT, TEHR-ee, ÷ HUTT
tester: (canopy) TEST-r; also TEEST-r in the South
textile: TEKST-*yle,* TEKST-l
Thailand: TYE-*land,* -lund
Thames: (in England) temmz; (in Connecticut) thaimz, temmz, occasionally taimz
thresh: (grain) also spelled *thrash;* however spelled, more often pronounced thrash than thresh by farmers
thyme: tyme
tiara: tye-AIR-a, tee-AHR-a
Togliatti, Palmiro: toal-YAHT-tee
tomato: for the middle syllable: -MATE- is heard in all parts of the U. S.; -MAHT- is universal in England and is frequent in New England and New York City; -MATT- is a less frequent New England pronunciation
totalitarian: *toe-tal*-a-TEHR-ee-un
toupee: too-PAY
tournament, tourney: First syllable TURRN-, TOORN-, or TORN-
tourniquet: first syllable TOORN- or TURRN-; third syllable -kut, *-kett,* or *-kay*
toward: ("in the direction of") toard, tuh-WAWRD, twawrd
tragacanth: TRADJ-a-*kanth,* -kunth, TRAGG-
transient: TRANTCH-nt (the usual British pronunciation seems to be TRAN-zee-unt)
travail: A book word that has no pronunciation tradition; truv-ALE or TRAV-*ale* will probably make you understood.
traverse: (verb) truv-URCE (TRAV-erce seems to be usual in Great Britain but is infrequent in the U. S.)
tremendous: tree-MEND-us (not -MENDJ-us)
tremor: TREMM-r, less often TREEM-r
trespass: TRESS-pus; the last syllable may also, more often in the verb than in the noun, be pronounced *-pass*
tribunal: trybe-UNE-l, tribb-
tribune: TRIBB-*yune,* tribb-YUNE
tricycle: TRY-*sick*-l (see *bicycle, motorcycle*)
Trieste: tree-ESST, tree-ESS-tay
trio: TREE-*oh* (most dictionaries also give TRY-*oh,* but this pronunciation is seldom heard)
troche: (lozenge) TROE-kee; the British also say troak, troash, troatch
troth: trawth, troath
trough: troff, nonstandard troth; U. S. bakers often rhyme with *hoe,* British bakers with *how*
truculent: TRUCK-yul-unt, TRUKE-
tryst: rhymes with *mist* or *iced*
tuberose: (flower) TOOB-*roaz,* TOOB-r-*oace,* TOOB-r-*oaz*

turbine: TURB-n, *-yne*
turquoise: TURR-*koiz*, *-kwoiz*
tyranny: TEAR-un-ee
tyrant: TIRE-unt

ultimatum: *ult*-m-ATE-m, much less often -AHT-m
Uruguay: YOOR-a-*gwye*, *-gweigh*, OOR-
usage: YUCE-idj, YUZE-
usurp: yew-SURP, -ZURP
usurpation: *yuce*-r-PAYSH-n, *yuze*-r-

vagary: vug-EHR-ee, VAGUE-r-ee
van Gogh: van GO (Anglicized pronunciation: the Dutch pron. is impossible for one who knows only English sounds to pronounce)
variegate: VAIR-a-*gait*, VAIR-ee-a-
vase: vayce, infrequently vayze; in Great Britain: vahz, infrequently vawz
vaudeville: VAWD-uv-*ill*, VAWD-uv-l, VAWD-*vill*, VODD-; VOAD-*vill*
vegetable: VEDJ-tub-l, VEDJ-uh-tub-l
vehement: VEE-um-unt
vehicle: VEE-*ick*-l, *-hick*-l
Venus of Milo: VEE-nus; MEE-*loe*, MYE-
vermouth: vur-MOOTH
Versailles: *vehr*-SIGH, vurr-SIGH, vurr-SALEZ
version: VURZH-n
vertigo: VURR-tig-*oe*, vurr-TYE-goe, vurr-TEE-goe
veterinary: VETT-r-un-*ehr*-ee, VETT-n-*ehr*-ee
via: VYE-a, VEE-a
vice versa: VYCE-a VURCE-a, ÷ VYCE, VYCE-ee
Vienna: (Austria) vee-ENN-a; some U. S. places so named are vye-
viola: (instrument) vee-OAL-a, vye-
violoncello: VYE-ul-un-CHELL-oe, VEE-; but usually spelled *cello* and pronounced CHELL-oe
virile: VEAR-ul; VYRE-, though recorded in most dictionaries, seems to be rare
virulent: VEAR-ya-lunt, VEAR-a-
vis-à-vis: VEEZ-a-VEE
viscount: VYE-*count*
visor: VYZE-r, rarely VIZZ-r
vitamin: VITE-um-in; the British frequently say VITT-
viva voce: VYE-va VOAS-ee

waft: *a* as in *whack* or as in *what*
Waikiki: WYKE-a-KEE
warrior: WAWR-ee-ur, WAWR-yur, WAHR-ee-ur
wash, Washington: WAWSH(-) or WAHSH(-); avoid WORSH(-)
wassail: WAHSS-l
water: WAWT-r, WAHT-r
Westminster: three syllables, not four: WEST-*minst*-r, not WEST-MIN-ust-r
wh-: with many (esp. in cities), not different from *w-*, *what* and *watt* being identical in sound
why: most speakers who pronounce hwye in asking a question pronounce wye in other situations, as in "Why of course!"
wistaria, wisteria: usually pronounced wiss-TERE-ee-a, however spelled
wont: (custom) rhymes with *bunt* or *don't* or *want*
worsted: (cloth) first syllable rhymes with *puss* or ÷ *purse*
wrath: (U. S.) rhymes with *path;* (England) rhymes with *cloth*
wrestle: RESS-l, ÷ RASS-l
wroth: rawth, roath

Xavier: ZAY-vee-ur, much less often ZAVV-ee-ur
xylophonist: ZYLE-a-*foan*-ist

yearling: YERE-ling; by farmers also YURR-ling
Yosemite: yoe-SEMM-a-tee

zeal: zeel
zealot: ZELL-ut
zealous: ZELL-us
zinnia: ZINN-ee-a, ZINN-ya, ZEEN-ya
zoology: zoh-OLL-a-jee, ÷ zoo-OLL-
zwieback: SWEE-*back*, SWYE-, ZWEE-, ZWYE-

Words Frequently Confused

adapt: to make suitable
adopt: to take as one's own; to accept

affect: to influence
effect: to accomplish

altar (noun): communion table
alter (verb): to change

berth: sleeping place
birth: being born

callous (adjective): unfeeling
callus (noun): hard skin tissue

capital (adjective): important
capital (noun): seat of government; accumulated wealth; total stock
capitol (noun): building where legislature meets

complement: something that completes
compliment: expression of approval

corps: military unit
corpse: dead body

council: deliberative body
counsel: advice, consultation, purpose

desert: due reward or punishment; waste land
dessert: sweet course at close of meal

dual (adjective): twofold
duel (noun): combat between two persons

dyeing: coloring
dying: at the point of death

ingenious: clever, skillful
ingenuous: frank, open, artless

loose (verb): to cut loose; to sever
lose (verb): to mislay; not to win

pedal (noun): lever worked by foot
peddle (verb): sell from house to house

principal (adjective): chief
principal (noun): head of school
principle (noun): basic truth, rule of conduct; the way anything works or is made

stationary: fixed, unchanging
stationery: writing materials

their (pronoun, adjective): of or belonging to them
there (adverb): in, at, or to a certain place
weather (noun): heat or cold, calm or storm, rain or shine
whether (conjunction): if, in case

Words Frequently Misspelled

(Here spelled correctly)

abbreviate
abeyance
abolition
abridge
abscess
absence
absorption
abstinence
abysmal
abyss
accede
accelerate
accessory
accidentally
acclaim
accommodate
accompaniment
accordance
accredit
accumulate
accuracy
achieve
acknowledge
accustic
acquaintance
acquiescent
acquire
acquisitive
acquit
acrimony
across
adaptation
addition
address
adept
adequacy
adolescence
adventitious
advocacy
affable
aggravate
aggregate
aggressive
aghast
align
alleged
allegiance
allotment
all right
allure
amateur
amenable
analogous
analysis
annals
annihilate
annually
annuity

annul
annulment
anomaly
anonymous
answer
antechamber
antediluvian
antenna
anticipate
antidote
apologize
apoplexy
appalling
apparatus
appreciation
appurtenance
argosy
argument
arraign
ascend
ascension
ascertain
asinine
aspirant
assassinate
assistance
association
assurance
attendance
attenuate
attorney
audible
audience
autumn
auxiliary
azalea

babyhood
bacchanalia
bachelor
baggage
banana
barbecue
barbiturate
battalion
believe
beneficiary
benefited
benign
bereave
beseech
beverage
bibliography
bicycle
biennial
bigoted
bilious
blasphemous

bleach
bonnet
bouillon
boundaries
bouquet
bourgeoisie
brilliant
browse
bullion
bunion
buoyancy
bureaucracy
business

cafeteria
callously
calorie
candidacy
cantaloupe
canteen
capitalize
captaincy
caress
carillon
carriage
carrot
cartilage
casualties
ceiling
cemetery
chalet
challenge
chamois
champagne
changeable
character
chauffeur
chemise
cherub
chicory
chief
chilblain
chivalrous
choosing
chronicle
chrysanthemum
cipher
circuit
circumstantial
civilize
civilly
clumsily
coarsen
cocoa
codicil
column
coming
commencement

commissary
commission
committee
commodore
comparable
compatible
compel
compelling
complexion
compromise
concede
conceit
conceive
concomitant
concupiscence
concurrence
condemn
condescension
connoisseur
conscience
conscientious
conscious
consecrate
consistent
conspicuous
conspiracy
constituency
constituent
consulate
contaminate
contemptible
contemptuous
contentious
continually
controversy
convalescent
convenient
convertible
cooing
cordially
corollary
correlate
counterfeit
counterrevolution
courageous
courteous
court-martial
crescent
critically
crochet
croquet
cruelty
cunning
curriculum
cursory
custodian
customary

cyclone
cygnet
cylinder
cylindrical

daffodil
dahlia
damage
dearth
debatable
debilitate
decadence
deceased
deceitfully
deceive
decision
defendant
deference
defiant
definitely
delegate
delicacy
demise
denouement
descendant
desecrate
desiccate
despair
desperate
despicable
despise
despondent
detachable
deterrent
development
diabetes
diaphragm
dictionary
diesel
different
diffident
dilapidated
dilatory
dilemma
dilettante
diligent
dimension
dimity
dining room
diphtheria
diplomacy
disappear
disappoint
disapprove
disastrous
discern
discipline
disconsolate

discrepancy
discretion
disdain
disillusion
disinter
disparage
disperse
dissatisfaction
dissemble
dissenter
dissimilar
dissipate
dissolve
distention
divine
dizziness
dizzy
dogged
domain
domicile
dormitory
dotage
doughnut
dour
duly
dutiable
dutiful

earnest
eavesdropper
ebony
eccentric
echoes
echoing
ecstasy
edible
editor
effervescent
efficiency
effigy
effusive
egress
eider down
eighth
elegy
elementary
eligible
eliminate
emanate
embarrassment
emigrant
eminent
emphatically
emulate
enable
encourage
endear
endorse
energetic
enervate
ennoble
entail
enumerate
enunciation
enviable
environment
equalize
equally
equipped
erratic
especially
ethereal
evanescent
eventually
evidently
evilly
exaggerate
exasperate
exceed
excel
excellent
exception
excerpt
excess
excessive
excise
excitement
excrescence
execrable
exhaust
exhibit
exhilarate
exhort
exhume
existence
exorbitant
expedient
experience
extension
extenuate
extinguish
extraordinary
extravagant
exuberant
exultant

fallacy
fallible
fascinate
fiery
filament
financier
fissure
flaccid
fluorescent
forcible
foreboding
foresee
forsythia
fracas
fragility
friar
friend
frivolous
fugue
fulsome
functionary
fundamentally

gabardine
gagged
gamut
garrulity
gaseous
gauze
genealogy
genre
ghastly
gibber
giblets
gingham
gizzard
globule
government
gradient
grammar
grateful
gratitude
grievous
grimace
gruesome
guaranteed
guidance

haggle
hallucination
handkerchief
harass
harness
heifer
height
heresy
hideous
historically
hoary
homogeneous
horoscope
hygiene
hypnotic
hypocrisy
hypocrite
hypocritical
hysterically

idiocy
idiosyncrasy
idolatrous
illegitimacy
illegitimate
illiterate
illogical
imaginary
imbecile
imitate
immaculate
immeasurable
immediately
immorality
immune
impeccable
impertinent
implement
improvise
incensed
incessantly
incidentally
incise
incongruous
incorruptible
incredible
indebted
indefatigable
indefeasible
indefensible
indelible
independence
indict
indigenous
indiscriminate
indispensable
individuality
indivisible
inexhaustible
infallible
influential
inimical
innate
innocuous
inoculate
insensate
inseparable
insistence
intellectually
intercede
interpret
interracial
interrupt
intimidate
introvert
irreconcilable
irrefutable
irresistible
irrespective
irreverent
irrigate
isosceles

jaundice
jealousy
jeopardy
jockey
jollity
journeyman
joviality
jovially
jugular

kaleidoscope
khaki
kiln
kimono
kindergarten
knead
knowledge

laboratory
labyrinth
lacquer
ladle
ladylike
language
laryngeal
larynx
lascivious
latitude
lattice
leaven
legacy
legendary
legitimate
leisure
leprosy
lettuce
liable
librarian
ligament
likelihood
limousine
liquor
litany
livelihood
loathe
loneliness
lonely
loosely
lunacy
luscious

mackerel
mackintosh
maddening
maggot
maintenance
malaria
manacle
maniacal
manufacturer
marmalade
massacre
mayonnaise
measles
mediocre
mediocrity
mellifluous
metamorphosis
meteorology
millionaire
mimicking
mimicry
miniature
miscellaneous
mischievous
misspell
moccasin
mortgage
mountaineer
mountainous
mulatto
murmur
mysterious

naphtha
narcissus
nascent
naturally
nausea
nauseous
necessarily
necessitate
niece
niggardly
ninth
noncombatant
noticeable
notoriety

obedience
obeisance
obligate
obscene
obsession
obstacle
obstinate
occasion
occurrence
oddity
offensive
official
ominous
omission
oneself
operator
opportunity
opposite
optimist
origin
oscillate
ostentatious
outrageous
oxidize

palatable
pamphlet
panacea
pantomime
parallel
parliamentary
paroled
parricide
participle
particularly
pastime
patience
pavilion
pedant
pedestal
penicillin
perceive
perennial
peripatetic
permissible
perseverance
persistent
personality
personnel
perspiration
persuade
physician
pianos
picnic
picnicking
piecemeal
pierce
pigsty
pilgrimage
pillory
pinion
piteous
playwright
plebiscite
pneumatic
pneumonia
pompous
pontiff
pontificate
portrait
possessive
possibility
potatoes
practicability
precede
precedence
precedent
precocious
predecessor
preferable
prejudice
presence
presumptuous
prevalent
primeval
privilege
probably
proceed
professor
promenade
pronunciation
propaganda
propeller
protein
pseudonym
psychoanalysis
psychology
ptomaine
publicly
pursuit
pyramid

quadruped
quandary
quarantine
quarrelsome
quay
querulous
queue
quixotic
quizzes
quizzical

racketeer
ragamuffin
raillery
rapidity
ravenous
realize
really
rebus
recalcitrant
recede
receipt
receive
recipe
recipient
recognition
recollect
recommend
recoup
recruit
redolent
referable
referee
reference
referendum
refraction
rehearsal
relevant
religious
reminiscence
renaissance
renounce
renown
renunciation
repellent
repercussion
repertory
repetitious
reprieve
rescind
resemblance
reservation
reservoir
residual
resilient
resistance
resonance
respectively
respite
responsible
restaurant
resurrect
retaliate
retina
retrieve
reveille
revelation
reverence
reversible
revolution
rhapsody
rhetorically
rheumatic
rhinestone
rhinoceros
rhododendron
rhythm
rickety
ridiculous
righteous
riotous
riveter
rueful
rummage
runaway
rutabaga

sabotage
sachet
sacrament
sacrificial
sacrilege
sacrilegious
sadism
saffron
salient
sanatorium
sanctuary
sanitarium
sassafras
scandalous
scenario
scentless
schedule
schism
scintillate
scourge
scurrilous
scythe
secede
sedentary
seesaw
segregate
seize
self-reliant
sensitive
sensual
sententious
separate
serviceable
severely
shellacking
shield
shriek
siege
sieve
significance
similar
sirocco
skein
skillet
sleigh ride
sleight of hand
slimy
slovenly
sluggish
sluice
smorgasbord
so-called
soccer
solder
solecism
soluble
solvable
somersault
sophisticated
souvenir
spacious
spatial
specimen
spigot
sponsor
squalid
squalor
stabbing
staccato
statue
stoically
straightway
strait-laced
stubbornness
subsidize
substantial
subtle
subtlety
succeed
success
succor
sufferance
superintendent
supervise
supplement
suppress
surfeit
surfeited
surprise
surveillance
susceptible
syllable
symbolically
symmetrical
symmetry
syphilis
systematically

taffeta
talisman
tariff
tattooing
technicality
temperament
temperature
tempestuous
temporary
tenacious
tendon
tenement
tension
tentacle
testament
theirs
thief
thoroughfare
thousandth
threshold
thunderous
tidiness
timorous
tinselly
titillation
tobacco
toboggan
tolerant
tomatoes
tonsillectomy
tonsillitis
toque
torrential
tortoise
tournament
tourniquet
trachea
tradition
trafficking
tragically
transcendent
transept
transient
transparency
transubstantiation
trauma
tread

trek
tremendous
trepidation
tributary
tricycle
triennial
trollop
trough
trousseau
truant
truism
truly
tuberculosis
tumultuous
turpentine
tussle
tweezers
tycoon
typhoon
typical
typify

tyrannical
tyranny
tyrant

ukulele
ulcerous
ultimate
unadulterated
unalloyed
unanimous
uncomplimentary
unconscionable
unctuous
undoubtedly
unexceptionable
unguent
unparalleled
unprecedented
unpredictable
unrequited

untenable
unwieldy
upbraid
usually
utensil
utilize
utopia

vaccinate
vacillate
vacuum
valet
vanilla
vegetable
vehicle
venereal
vengeance
vermilion
vigilance
vilify
villain

virile
virtual
visibility
visionary
vitality
vitally
voluminous
voluntarily

warrior
weakling
weasel
weather vane
weighing
weird
welcome
whalebone
wheedle
whimsical
whirl
wholly
whooping cough
whore
wield
withhold
witticism
wizard
wondrous
wooing
worried
worrying
wrapper
wreak
wrestle

yacht
yield

zealous
zoology
zwieback

Forms of Address

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Abbot. *Address:* The Right Reverend _____ _____, Abbot of _____. *Begin:* Right Reverend and dear Father.

Alderman. *Address:* Honorable _____ _____. *Begin:* Dear Sir.

Ambassador. *Address:* His Excellency, _____ _____, Ambassador of _____ at _____. *Begin:* Sir; *or* Excellency.

Ambassador and his wife. *Address:* His Excellency, The _____ Ambassador and Mrs. _____ _____. *Begin:* Your Excellencies.

Archbishop (Anglican). *Address:* The Most Reverend His Grace the Lord Archbishop of _____. *Begin:* My Lord Archbishop; *or* Your Grace.

Archbishop (Roman Catholic). *Address:* The Most Reverend _____ _____, D.D., Archbishop of _____. *Begin:* Your Excellency.

Archdeacon. *Address:* The Venerable The Archdeacon of _____. *Begin:* Venerable Sir.

Army Officers. *Address:* The Commander in Chief, Army of the U. S.; *or* (use officer's rank) _____ _____, U.S.A. *Begin:* Sir; *or* My dear General _____.

Assemblyman. *Address:* The Honorable _____ _____, Member of Assembly; *or* Assemblyman _____. *Begin:* Sir; *or* My dear Mr. _____.

Assistant Secretary (Assistant to a Cabinet Officer). *Address:* Honorable _____ _____, Assistant Secretary of _____. *Begin:* Sir; *or* Dear Mr. _____.

Associate Justice. *Address:* The Honorable _____ _____, United States Supreme Court; *or* Mr. Justice _____, The Supreme Court. *Begin:* Mr. Justice; *or* Dear Justice.

Baron. *Address:* The Right Honourable Lord _____; *or* The Lord _____. *Begin:* My Lord.

Baroness. *Address:* The Right Honourable the Baroness _____; *or* The Lady _____. *Begin:* Madam.

Baronet. *Address:* Sir John _____, Bt. *or* Bart. *Begin:* Sir.

Baronet's wife. See *Lady,* below.

Baron's wife. See *Baroness,* above.

Bishop (Anglican). *Address:* The Right Reverend the Lord Bishop of _____; *or* The Lord Bishop of _____. *Begin:* My Lord Bishop; *or* My Lord.

Bishop (Methodist). *Address:* Reverend Bishop _____ _____. *Begin:* Dear Sir; *or* My dear Bishop _____.

Bishop (Protestant Episcopal). *Address:* To the Right Reverend _____ _____, Bishop of _____. *Begin:* Right Reverend and Dear Sir; *or* Dear Bishop _____.

Bishop (Roman Catholic). *Address:* The Most Reverend _____ _____, Bishop of _____. *Begin:* Your Excellency; *or* Most Reverend Sir.

Cabinet Officers (U. S.). *Address:* The Honorable the Secretary of State (or Labor, etc.); The Secretary of State, etc. *Begin:* Sir; *or* My dear Mr. Secretary.

Canon. *Address:* The Very Reverend Canon _____ _____; *or* The Very Reverend _____, Canon of _____. *Begin:* Very Reverend Canon; *or* Dear Canon _____.

Cardinal. *Address:* His Eminence John, Cardinal _____. *Begin:* Your Eminence.

Cardinal (if also an Archbishop). *Address:* His Eminence _____, Cardinal _____, Archbishop of _____. *Begin:* Your Eminence.

Chargé d'Affaires. *Address:* The Chargé d'Affaires of _____; *or* _____ _____, Esq., Chargé d'Affaires. *Begin:* Dear Sir; *or* My dear Mr. _____.

Chief Justice of the U. S. *Address:* The Chief Justice of the U. S.; *or* The Chief Justice, The Supreme Court, Washington, D. C. *Begin:* My dear Mr. Chief Justice; *or* Sir.

Clergyman. *Address:* The Reverend _____ _____; *or* (if doctor of divinity) The Rev. Dr. _____ _____. *Begin:* Dear Sir; *or* Reverend Sir.

Clerk of Senate or House. *Address:* The Honorable _____ _____, Clerk of _____. *Begin:* Sir; *or* Dear Sir.

Commissioner of Bureau. *Address:* The Honorable _____ _____, Commissioner of the Bureau of _____. *Begin:* Sir; *or* Dear Sir.

Congressman. *Address:* Honorable James H. Smith, House of Representatives. *Begin:* Sir; *or* Dear Sir.

Consul. *Address:* To the American Consul at _____; *or* _____ _____, Esq., American Consul at _____. *Begin:* Dear Sir.

Countess. *Address:* To the Right Honourable The Countess of _____. *Begin:* Madam.

Dame. *Address:* Dame _____ _____. *Begin:* Madam.

Deacon. (Anglican and Protestant Episcopal). *Address:* The Reverend Deacon _____. *Begin:* Reverend Sir.

Dean (Ecclesiastic). *Address:* The Very Reverend the Dean of _____. *Begin:* Very Reverend Sir; *or* Sir.

Dean, Rural (Roman Catholic Church). *Address:* The Very Reverend _____ _____, R.D., *or* V.F. *Begin:* Very Reverend Father.

Dean of a College or Graduate School. *Address:* Dean _____ _____. *Begin:* Dear Sir; *or* Dear Dean _____.

Divorced woman. *Address:* Ordinarily use the maiden name with *Mrs.* Some divorced women prefer to resume the *Miss.*

Doctor of Divinity. *Address:* _____ _____, D.D.; *or* Rev. Dr. _____. *Begin:* Dear Sir; *or* Dear Dr. _____.

Doctor of Philosophy, Laws, Medicine, etc. *Address:* _____ _____, Ph.D. (LL.D.) (M.D.); *or* Dr. _____ _____. *Begin:* Dear Sir; *or* Dear Dr. _____.

Dowager. See *Widow,* below.

Duchess. *Address:* Her Grace the Duchess of _____; *or* The Most Noble the Duchess of _____. *Begin:* Madam; *or* Your Grace.

Duchess of the Blood Royal. *Address:* Her Royal Highness The Duchess of _____. *Begin:* Madam; *or* May it please your Royal Highness.

Duke. *Address:* His Grace the Duke of _____; *or* The Most Noble the Duke of _____. *Begin:* My Lord Duke; *or* Your Grace.

Duke of the Blood Royal. *Address:* His Royal Highness The Duke of _____. *Begin:* Sir; *or* May it please your Royal Highness.

Earl. *Address:* The Right Honourable The Earl of _____; *or* The Earl of _____. *Begin:* My Lord.

Earl's wife. See *Countess,* above.

Envoy. Same as Minister (Diplomatic).

Esquire. *Address:* _____ _____, Esq. *Begin:* Sir; *or* Dear Mr. _____. (Note.—*Esq.* is never used if the person is addressed by any other title, even *Mr.*)

Governor. *Address:* (In Mass. and by courtesy in some other states) His Excellency, The Governor of _____; *or* His Excellency _____ _____; *or* (in other states of the U. S.) The Honorable the Governor of _____; *or* Hon. _____ _____, Governor of _____. *Begin:* Sir; *or* Dear Sir.

Governor-General of Canada. *Address:* His Excellency The Right Honourable _____ _____, (plus rank or title, if any). *Begin:* My Lord; *or* Sir.

Governor-General's wife. *Address:* Her Excellency _____ _____. *Begin:* Madam.

Judge (U.S.A.). *Address:* The Honorable _____ _____, U. S. District Judge. *Begin:* Dear Sir; *or* My dear Judge _____.

King. *Address:* The King's Most Excellent Majesty; *or* His Most Gracious Majesty, King _____. *Begin:* Sir; *or* May it please your Majesty.

King's Counsel. *Address:* To _____ _____, Esq., K.C. *Begin:* Sir.

Knight. *Address:* Sir John _____ (initials of his order, if any, as K.C.B.). *Begin:* Sir.

Knight's wife. See *Lady,* below.

Lady. *Address:* Lady _____, *or* (if daughter of a baron or viscount) Hon. Lady _____; *or* (if the daughter of an earl, marquis, or duke) Lady Florence _____. *Begin:* Madam; *or* Your Ladyship.

Lawyer. *Address:* _____ _____, Esq.; *or* Mr. _____ _____, Attorney at Law. *Begin:* Dear Sir; *or* My dear Mr. _____.

Lieutenant Governor. *Address:* The Honorable _____, Lt. Governor of _____. *Begin:* Sir; *or* Dear Sir.

Maid of Honor. *Address:* The Honourable Miss _____. *Begin:* Madam.

Marchioness. *Address:* The Most Honourable the Marchioness of _____. *Begin:* Madam.

Marquis. *Address:* The Most Honourable the Marquis of _____; *or* The Marquis of _____. *Begin:* My Lord Marquis.

Mayor (in Canadian cities and towns, and English boroughs). *Address:* The Right Worshipful the Mayor of _____ (English); His Worship, The Mayor of _____ (Canadian). *Begin:* Sir.

Mayor (in the U. S.). *Address:* The Honorable _____ _____, Mayor of _____; *or* The Mayor of the City of _____. *Begin:* Sir; *or* Dear Mr. Mayor.

Member of Parliament (or of a Provincial Legislative Council or Legislature, etc.) To the ordinary form of address add M.P. (*or* M.P.P.; *or* M.L.A., etc.). *Begin:* Sir.

Minister (Diplomatic). *Address:* The Honorable _____ _____, Minister of _____. *Begin:* Sir; *or* My dear Mr. Minister.

Minister (Religious). See *Clergyman,* above.

Moderator (Presbyterian Church). *Address:* The Right Reverend _____. *Begin:* Right Reverend Sir.

Monsignor. *Address:* The Right Reverend Monsignor _____ _____. *Begin:* Right Reverend and dear Monsignor.

Mother Superior of a Sisterhood. *Address:* The Reverend Mother Superior, Convent of _____; *or* Reverend Mother _____, O.S.D. (or other initials of the order). *Begin:* Reverend Mother; *or* Dear Madam.

Naval Officers. *Address:* The Admiral of the Navy of the U. S.; *or* Captain _____ _____, U.S.N. *Begin:* Sir; *or* Dear Commander _____; but for officers below the rank of commander, Dear Mr. _____.

Nun. See *Sister of a Religious Order,* below.

Papal Nuncio or Internuncio or Apostolic Delegate. *Address:* His Excellency, The Papal Nuncio (*or* Internuncio *or* Apostolic Delegate) to _____. *Begin:* Your Excellency.

Patriarch (Eastern Church). *Address:* His Beatitude the Patriarch of _____; *or* His Beatitude the Lord _____, Patriarch of _____. *Begin:* Most Reverend Lord; *or* Your Beatitude.

Pope. *Address:* To His Holiness Pope _____. *Begin:* Most Holy Father; *or* Your Holiness.

President of a College or University. *Address:* _____ _____ _____, LL.D. (*or* if he is not an LL.D., use the initials of his highest degree), President of _____ University; *or* President, _____ University. If he is a clergyman, address as Reverend _____ _____, LL.D., President of _____ University. *Begin:* Dear Sir; *or* Dear President _____.

President of a Theological Seminary. *Address:* The Rev. President _____ _____. *Begin:* Dear Sir; *or* Dear President _____.

President of State Senate. *Address:* The Honorable _____ _____, President of the Senate of _____. *Begin:* Sir.

President of the Senate of the U. S. *Address:* The Honorable, The President of the Senate of the U. S.; *or* The Honorable _____ _____, President of the Senate. *Begin:* Sir.

President of the U. S. *Address:* The President, The White House; *or* His Excellency, The President of the U. S. *Begin:* Mr. President; *or* The President; *or* My dear Mr. President.

Priest (Roman Catholic Church). *Address:* Reverend _____ _____, O.S.M. (*or* other initials of his order). *Begin:* Dear Father _____ (religious name).

Prime Minister of Canada. *Address:* The Right Honourable _____, P.C., Prime Minister of Canada. *Begin:* Sir.

Prince of the Blood Royal. *Address:* His Royal Highness Prince _____. *Begin:* Sir.

Prince of Wales. *Address:* His Royal Highness The Prince of Wales. *Begin:* Sir; *or* May it please your Royal Highness.

Princess of the Blood Royal. *Address:* Her Royal Highness the Princess _____ (Christian name). *Begin:* Madam.

Privy Councillor (British Imperial). *Address:* To the Right Honourable _____ _____, P.C. *Begin:* Sir. Note.—If other titles are used, they should come after *The Right Honourable;* as, The Right Honourable Sir John _____.

Privy Councillor (of Canada). *Address:* The Honourable _____. *Begin:* Sir.

Professor in a College or University. *Address:* Professor _____ _____; *or* _____ _____, Ph.D. (*or* LL.D., M.D., etc., using only the initials of his highest degree, if the degrees are in the same field), Professor of _____. *Begin:* Dear Sir; *or* My dear Professor.

Professor in a Theological Seminary. *Address:* The Reverend Professor _____ _____; *or* The Rev. _____ _____, D.D. *Begin:* Dear Sir; *or* Dear Professor _____.

Queen. *Address:* The Queen's Most Excellent Majesty; *or* Her Gracious Majesty, The Queen. *Begin:* Madam; *or* May it please your Majesty.

Queen Mother. *Address:* Her Gracious Majesty Queen _____. *Begin:* Madam; *or* May it please your Majesty.

Rabbi. *Address:* Rabbi _____ _____; *or* The Rev. _____ _____. *Begin:* Reverend Sir; *or* My dear Rabbi _____. (If he holds a doctor's degree, Dr. may be substituted for Rabbi.)

Rector of a Religious House or of a Seminary. *Address:* The Very Reverend _____ _____, O.S.B. (*or* other initials of order), Rector, Brothers of St. Francis. *Begin:* Very Reverend and dear Father (*or* Brother).

Representative. See *Congressman,* above.

Senator (U. S.) *Address:* The Honorable _____ _____, the U. S. Senate, Washington, D. C. *Begin:* Dear Sir; *or* My dear Senator.

Sister of a Religious Order. *Address:* Sister _____, (followed by the initials of the order). *Begin:* Dear Sister; *or* My dear Sister _____.

Speaker of the House of Commons (Canada). *Address:* The Honourable _____ _____, The Speaker of the House of Commons. *Begin:* Dear Mr. Speaker.

Speaker of the House of Representatives of the U. S. *Address:* The Honorable _____ _____, Speaker of the House of Representatives. *Begin:* Sir; *or* My dear Mr. Speaker.

State Senator. Like Senator (U. S.).

Undersecretary of State (U.S.A.). *Address:* The Undersecretary of State; *or* The Honorable _____ _____, Undersecretary of State. *Begin:* Sir; *or* Dear Mr. _____.

Vice-President. *Address:* The Vice-President; *or* The Honorable _____ _____, Vice-President of the U. S. *Begin:* Mr. Vice-President; *or* Sir.

Viscount. *Address:* The Right Honourable the Viscount _____; *or* The Viscount _____. *Begin:* My Lord.

Viscountess. *Address:* The Right Honourable the Viscountess _____; *or* The Viscountess _____. *Begin:* Madam.

Widow. *Address:* Ordinarily address by her former title; as, Mrs. John Smith, not Mrs. Mary Alice Smith, unless the latter form is preferred by the person herself.

CROSSWORD PUZZLE GUIDE

★

Since most persons who can read and write occasionally or frequently indulge in the indoor pastime of working crossword puzzles, this section is offered as a handy help to solvers who may be stumped for a two-letter word meaning "three-toed sloth" or a three-letter word meaning "native of Mindanao."

We have those two words here, and plenty more. We have the Greek, Roman, Norse and Egyptian deities of myth and legend. And we have those "Greek letters" and "months of the Jewish year" so often needed to fill out little gaps.

The reader is warned that in mythology there are many confusing and even conflicting accounts of the identities and adventures of the various gods, goddesses and lesser figures. There is also considerable variation in the spelling of names, places and things. For instance, you may spell it ICON, IKON or EIKON, and similar options are plentiful all along the crossword line. If the reader will keep further possible variations in mind, it may help at a critical point.

Various other sections of our book will be found of use to the crossword puzzler—especially the section of world geography and statistics which begins on page 667.

First Aid to Crossword Puzzlers

(We cannot, of course, begin to list all the odd words you will meet with in your daily and Sunday crossword puzzles, for such words run into many thousands. But we have tried to include those which turn up most frequently, as well as many others which should be of help to you when you are unable to go any further.

Also, we do not guarantee that the definitions in your puzzle will be exactly the same as ours, although we have checked every word with a standard dictionary and have followed its definition.

In nearly every case, we have used as the key word the principal noun of the definition, rather than any adjective, adjective phrase, or noun used as an adjective. And, to simplify your searching, we have grouped the words according to the number of spaces you have to fill.)

Words of Two Letters

Ambary, DA
And (French, Latin), ET
Article (Arabic), AL
(French), LA, LE, UN
(Spanish), EL, LA, UN
At the (French), AU
(Spanish), AL
Behold, LO
Bird: Hawaiian, OO
Birthplace: Abraham's, UR
Bone, OS
Buddha, FO
Butterfly: Peacock, IO
Champagne, AY
Chaos, NU
Chief: Burmese, BO
Coin: Roman, AS
Siamese, AT
Concerning, RE
Dialect: Chinese, WU
Double (Egy. relig.), KA
Drama: Japanese, NO
Egg (comb. form), OO
Esker, OS
Eye (Scotch), EE
Factor: Amplification, MU
Fifty (Greek), NU
Fish: Carplike, ID
Force, OD
Forty (Greek), MU
From (French, Latin, Spanish), DE
(Latin prefix), AB
From the (French), DU
God: Babylonian, EA, ZU
Egyptian sun, RA
Hindu unknown, KA
Semitic, EL
Goddess: Babylonian, AI
Greek earth, GE
Gold (heraldry), OR
Gulf: Arctic, OB
Heart (Egy. relig.) AB
Indian: South American, GE
King: Of Bashan, OG
Language: Artificial, RO
Assamese, AO
Lava: Hawaiian, AA
Letter: Greek, MU, NU, PI, XI
Hebrew, HE, PE
Lily: Palm, TI
Measure: Annamese, LY
Chinese, HO, HU, KO, LI, MU, PU, TO, TU
Japanese, GO, JO, MO, RI, SE, TO
Metric land, AR
Netherlands, EL
Portuguese, PE
Siamese, WA
Swedish, AM
Type, EM, EN
Monk: Buddhist, BO
Month: Jewish, AB
Mouth, OS
Mulberry: Indian, AL
Native: Burmese, WA
Note: Of Scale, DO, FA, MI, LA, RE, TI
Of (French, Latin, Spanish), DE
Of the (French), DU
One (Scotch), AE
Pagoda: Chinese, TA
Plant: East Indian fiber, DA
Ridge: Sandy, AS, OS
River: Russian, OB
Sloth: Three-toed, AI
Soul (Egy. relig.), BA
Sound: Hindu mystic, OM
Suffix: Comparative, ER
The. *See* Article
To the: French, AU
Spanish, AL
Tree: Buddhist sacred, BO
Tribe: Assamese, AO
Type: Jumbled, PI
Weight: Annamese, TA
Chinese, LI
Danish, ES
Japanese, MO
Roman, AS
Whirlwind: Faeroe Is., OE
Yes (German), JA
(Italian, Spanish), SI
(Russian), DA

Words of Three Letters

Adherent, IST
Again, BIS
Age, ERA
Antelope: African, GNU, KOB
Apricot: Japanese, UME
Article (German), DAS, DEM, DEN, DER, DES, DIE, EIN
(French), LES, UNE
(Spanish), LAS, LOS, UNA
Banana: Polynesian, FEI
Barge, HOY
Bass: African, IYO
Beak, NEB, NIB
Beard: Grain, AWN
Beetle: June, DOR
Being, ENS
Berry: Hawthorn, HAW
Beverage: Hawaiian, AVA
Bird: Australian, EMU
Crowlike, JAY
Extinct, MOA
Fabulous, ROC
Frigate, IWA
Parson, POE, TUE, TUI
Sea, AUK
Blackbird, ANI, ANO
Born, NEE
Bronze: Roman, AES
Bugle: Yellow, IVA
By way of, VIA
Canton: Swiss, URI
Cap: Turkish, FEZ
Catnip, NEP
Character: In "Faerie Queene," UNA
Coin: Afghan, PUL
Albanian, LEK
British Guiana, BIT
Bulgarian, LEV, LEW
French, ECU, SOU
Indian, PIE
Japanese, SEN, YEN
Korean, WON
Lithuanian, LIT
Macao, Timor, AVO
Palestinian, MIL
Persian, PUL
Peruvian, SOL
Rumanian, BAN, LEU, LEY
Scandinavian, ORE
Siamese, ATT
See also Money of account
Collection: Facts, ANA
Commune: Belgian, ANS, ATH
Netherlands, EDE, EPE
Community: Russian, MIR
Constellation: Southern, ARA
Contraction: Poetic, EEN, EER, OER
Covering: Apex of roof, EPI
Crab: Fiddler, UCA
Crag: Rocky, TOR
Cry: Crow, rook, raven, CAW
Cup: Wine, AMA
Cymbal: Oriental, TAL, ZEL
Disease: Silkworm, UJI
Division: Danish territorial, AMT
Geologic, EON
Doctrine, ISM
Dowry, DOT
Dry (French), SEC
Dynasty: Chinese, CHI, HAN, SUI, WEI, YIN
Eagle: Sea, ERN
Earth (comb. form), GEO
Egg: Louse, NIT
Eggs: Fish, ROE
Emmet, ANT
Enzyme, ASE
Equal (comb. form), ISO
Extension: building, ELL
Far (comb. form), TEL
Farewell, AVE
Fiber: Palm, TAL
Finial, EPI
Fish: Carplike, IDE
Pikelike, GAR
Flatfish, DAB
Fleur-de-lis, LIS, LYS
Food: Hawaiian, POI
Formerly, NEE
Friend (French), AMI
Game: Card, LOO
Garment: Camel-hair, ABA
Gateway, DAR
Gazelle: Tibetan, GOA
Genus: Ducks, AIX
Grasses, POA
Grasses (maize), ZEA
Herbs or shrubs, IVA
Lizards, UTA
Rodents (incl. house mice), MUS
Ruminants (incl. cattle), BOS
Swine, SUS
Gibbon: Malay, LAR
God: Assyrian, SIN
Babylonian, ABU, ANU, BEL, HEA, SIN, UTU
Irish sea, LER
Phrygian, MEN
Polynesian, ORO
Goddess: Babylonian, AYA
Etruscan, UNI
Hindu, SRI, UMA, VAC
Teutonic, RAN
Governor: Algerian, DEY
Turkish, BEY
Grampus, ORC
Grape, UVA
Grass: Meadow, POA
Gypsy, ROM
Hail, AVE
Hare: Female, DOE
Hawthorn, HAW
Hay: Spread for drying, TED
Herb: Japanese, UDO
Perennial, PIA
Used for blue dye, WAD
Herd: Whales, GAM, POD
Hero: Spanish, CID
High (music), ALT
Honey (pharm.), MEL
Humorist: American, ADE
I (Latin), EGO
I love (Latin), AMO
Indian: Algonquian, FOX, SAC, WEA
Chimakuan, HOH
Keresan, SIA
Mayan, MAM
Shoshonean, UTE
Siouan, KAW, OTO
South American, ITE, ONA, URO, URU, YAO
Tierra del Fuego, ONA
Wakashan, AHT
Ingot, PIG
Inlet: Narrow, RIA
Island: Cyclades, IOS
Dodecanese, COS, KOS
(French), ILE
River, AIT
Jackdaw, DAW
John (Gaelic), IAN
Keelbill, ANI, ANO
Kiln, OST
King: British legendary, LUD
Kobold, NIS
Lace: To make, TAT
Lamprey, EEL
Language: Artificial, IDO
Bantu, ILA
Siamese, LAO, TAI
Leaf: Palm, OLA, OLE
Leaving, ORT
Left: Cause to turn, HAW
Letter: Greek, CHI, ETA, PHI, PSI, RHO, TAU
Hebrew, MEM, NUN, SIN, TAV, VAU
Lettuce, COS
Life (comb. form), BIO
Lily: Palm, TOI
Lizard, EFT
Louse: Young, NIT
Love (Anglo-Irish), GRA
Lute: Oriental, TAR
Macaw: Brazilian, ARA
Marble, TAW
Match: Shooting (French), TIR
Meadow, LEA
Measure: Abyssinian, TAT
Algerian, PIK
Annamese, GON, MAU, NGU, QUO, SAO, TAO, TAT
Arabian, DEN, SAA

Belgian, VAT
Bulgarian, OKA, OKE
Chinese, FEN, TOU, YIN
Cloth, ELL
Cyprus, OKA, OKE, PIK
Czech, LAN, SAH
Danish, FOD, MIL, POT
Dominican Republic, ONA
Dutch, old, AAM
East Indian, KIT
Egyptian, APT, HEN, PIK, ROB
Electric, MHO, OHM
Energy, ERG
English, PIN
Estonian, TUN
French, POT
German, AAM
Greek, PIK
Hebrew, CAB, HIN, KOR, LOG
Hungarian, AKO
Icelandic, FET
Indian, GAZ, GUZ, JOW, KOS
Japanese, BOO, CHO, KEN, RIN, SHO, SUN, TAN
Malabar, ADY
Metric land, ARE
Netherlands, KAN, KOP, MUD, VAT, ZAK
Norwegian, FOT, POT
Persian, GAZ, GUZ, MOU, ZAR, ZER
Polish, CAL
Rangoon, DHA, LAN
Roman, PES, URN
Russian, FUT, LOF
Scotch, COP
Siamese, KEN, NIU, RAI, SAT, SEN, SOK, WAH, YOT
Somaliland, TOP
Spanish, PIE
Straits Settlements, PAU, TUN
Swedish, ALN, FOT, MIL, REF, TUM
Swiss, POT
Tunisian, SAA
Turkish, OKA, OKE, PIK
Wire, MIL
Würtemberg, IMI
Yarn, LEA
Yugoslavian, OKA, RIF
Milk, LAC
Milkfish, AWA
Moccasin, PAC
Money: Yap stone, FEI
Money of Account: Anglo-Saxon, ORA, ORE
French, SOU
Indian, LAC
Japanese, RIN
Oman, GAJ
Virgin Islands, BIT
See also Coin
Monkey: Capuchin, SAI
Morsel, ORT
Mother: Peer Gynt's, ASE
Mountain: Asia Minor, IDA
Mulberry: Indian, AAL, ACH, AWL
Muttonbird: New Zealand, OII
Nahoor, SNA
Native: Mindanao, ATA
Neckpiece, BOA
Newt, EFT
No (Scotch), NAE
Note: Guido's highest, ELA
Of scale, SOL
Nursemaid: Oriental, AMA, IYA
Ocher: Yellow, SIL
One (Scotch), YIN
Ornament: Pagoda, TEE
Oven: Polynesian, UMU
Ox: Tibetan, YAK
Pagoda: Chinese, TAA
Parrot: Hawk, HIA
New Zealand, KEA
Part: Footlike, PES
Particle: Electrified, ION
Pasha, DEY
Pass: Mountain, COL
Paste: Rice, AME
Pea: Indian split, DAL
Peasant: Philippine, TAO
Penpoint, NEB, NIB
Piece out, EKE
Pigeon, NUN
Pine: Textile screw, ARA
Pistol (slang), GAT
Pit: Baking, IMU
Plant: Pepper, AVA
Play: By Capek, RUR
Poem: Old French, DIT
Porgy: Japanese, TAI
Priest: Biblical high, ELI
Prince: Ethiopian, RAS
Pseudonym: Dickens', BOZ
Queen: Fairy, MAB
Quince: Bengal, BEL
Record: Ship's, LOG
Refuse: Flax (Scotch), PAB, POB
Resin, LAC
Resort, SPA
Revolver (slang), GAT
Right: Cause to turn, GEE
River: Scotch or English, DEE (Spanish), RIO
Swiss, AAR
Room: Harem, ODA
Rootstock: Fern, ROI
Rose (Persian), GUL
Ruff: Female, REE
Rule: Indian, RAJ
Sailor, GOB, TAR
Saint: Female (abbr.), STE
Mohammedan, PIR
Salt, SAL
Sash: Japanese, OBI
Scrap, ORT
Seed: Poppy, MAW
Small, PIP
Self, EGO
Serpent: Vedic sky, AHI
Sesame, TIL
Sheep: Female, EWE
Indian, SHA
Male, RAM
Sheepfold (Scotch), REE
Shelter, LEE
Shield, ECU
Shooting match (French), TIR
Shrew: European, ERD
Shrub: Evergreen, YEW
Silkworm, ERI
Snake, ASP, BOA
Soak, RET
Son-in-law: Mohammed's, ALI
Sorrel: Wood, OCA
Spade: Long, narrow, LOY
Spirit: Malignant, KER
Spot: Playing-card, PIP
Spread for drying, TED
Spring: Mineral, SPA
Sprite: Water, NIX
Statesman: Japanese, ITO
Stern: Toward, AFT
Stomach: Bird's, MAW
Street (French), RUE
Summer (French), ETE
Sun, SOL
Swamp, BOG, FEN
Swan: Male, COB
Tea: Chinese, CHA
Temple: Shinto, SHA
The. *See* Article
Thing (law), RES
Title: Etruscan, LAR
Monk's, FRA
Portuguese, DOM
Spanish, DON
Turkish, AGA, BEY
Tool: Cutting, ADZ, AXE
Mining, GAD
Piercing, AWL
Tree: Candlenut, AMA
Central American, EBO
East Indian, SAJ, SAL
Evergreen, YEW
Hawaiian, KOA, KOU
Indian, BEL, DAR
Linden, LIN
New Zealand, AKE
Philippine, DAO, TUA, TUI
Rubber, ULE
South American, APA
Tribe: New Zealand, ATI
Tumeric, REA
Twice, BIS
Twin: Siamese, ENG
Uncle (dialect), EAM, EME
Veil: Chalice, AER, AIR
Vessel: Wine, AMA
Vestment: Ecclesiastical, ALB

Vetch: Bitter, ERS
Victorfish, AKU
Vine: New Zealand, AKA
Philippine, IYO
Wallaba, APA
Wapiti, ELK
Water (French), EAU
Waterfall, LIN
Watering place: Prussian, EMS
Weave: Designating plain, UNI
Weight: Annamese, CAN
Bulgarian, OKA, OKE
Burmese, MOO, VIS
Chinese, FEN, HAO, KIN, SSU, TAN, YIN
Cyprus, OKA, OKE
Danish, LOD, ORT, VOG
East Indian, TJI
Egyptian, KAT, OKA, OKE
English, for wool, TOD
German, LOT
Greek, MNA, OKA, OKE
Indian, SER
Japanese, FUN, KIN, RIN, SHI
Korean, KON
Malacca, KIP
Mongolian, LAN
Netherlands, ONS
Norwegian, LOD
Polish, LUT
Rangoon, PAI
Roman, BES
Russian, LOT
Siamese, BAT, HAP, PAI
Swedish, ASS, ORT
Turkish, OKA, OKE
Yugoslavian, OKA, OKE
Whales: Herd, GAM, POD
Wildebeest, GNU
Wing, ALA
Witticism, MOT
Wolframite, CAL
Worm: African, LOA
Wreath: Hawaiian, LEI
Yale, ELI
Yam: Hawaiian, HOI
Yes (French), OUI
Young: Bring forth, EAN
Z (letter), ZED

Words of Four Letters

Aborigine: Borneo, DYAK
Agave, ALOE
Animal: Footless, APOD
Ant: White, ANAI, ANAY
Antelope: African, ASSE, BISA, GUIB, KOBA, KUDU, ORYX, POKU, PUKU, TOPI, TORA
Apoplexy: Plant, ESCA
Apple, POME
Apricot, ANSU
Ardor, ELAN
Armadillo, APAR, PEBA, PEVA, TATU
Ascetic: Mohammedan, SUFI
Association: Chinese, TONG
Astronomer: Persian, OMAR
Avatar: Of Vishnu, RAMA
Axillary, ALAR
Band: Horizontal (heraldry), FESS
Barracuda, SPET
Bark: Mulberry, TAPA
Base: Column, DADO
Bearing (heraldry), ORLE
Beer: Russian, KVAS
Beige, ECRU
Being, ESSE
Beverage: Japanese rice, SAKE
Bird: Asian, MINA, MYNA
Egyptian sacred, IBIS
Extinct, DODO, MAMO
Flightless, KIWI
Gull-like, TERN
Hawaiian, IIWI, MAMO
Parson, KOKO
Unfledged, EYAS
Birds: As class, AVES
Black, EBON
(French), NOIR
Blackbird: European, MERL
Boat: Flat-bottomed, DORY
Bone: Forearm, ULNA
Bones, OSSA
Box: Japanese, INRO
Bravo (rare), EUGE
Buffalo: Indian wild, ARNA
Bull (Spanish), TORO
Burden, ONUS
Cabbage: Sliced, SLAW
Caliph: Mohammedan, OMAR
Canoe: Malay, PRAU, PROA
Cap: Military, KEPI
Cape, NESS
Capital: Ancient Irish, TARA
Case: Article, ETUI
Cat: Wild, BALU, EYRA
Chalcedony, SARD
Chamber: Indian ceremonial, KIVA
Channel: Brain, ITER
Cheese: Dutch, EDAM
Chest: Sepulchral stone, CIST
Chieftain: Arab, EMIR
Church: Part of, APSE, NAVE
(Scotch), KIRK
Claim (law), LIEN
Cluster: Flower, CYME
Coin: Chinese, TAEL, YUAN
German, MARK
Indian, ANNA
Iranian, RIAL
Italian, LIRA
Moroccan, OKIA
Siamese, BAHT
South American, PESO
Spanish, DURO, PESO
Turkish, PARA
Commune: Belgian, AATH
Composition: Musical, OPUS
Compound: Chemical, DIOL
Constellation: Southern, PAVO
Council: Russian, DUMA
Counsel, REDE
Covering: Seed, ARIL
Cross: Egyptian, ANKH
Cry: Bacchanalian, EVOE
Cup (Scotch), TASS
Cupbearer, SAKI
Dagger, DIRK
Malay, KRIS
Dam: River, WEIR
Dash, ELAN
Date: Roman, IDES
Dawn: Pertaining to, EOAN
Dean: English, INGE
Decay: In fruit, BLET
Deer: Sambar, MAHA
Disease: Skin, ACNE
Disk: Solar, ATEN
Dog: Hunting, ALAN
Drink: Hindu intoxicating, SOMA
Duck, SMEE, SMEW, TEAL
Dynasty: Chinese, CHEN, CHIN, CHOU, CHOW, HSIA, MING, SUNG, TANG, TSIN
Mongol, YUAN
Eagle: Biblical, GIER
Sea, ERNE
Egyptian: Christian, COPT
Ear: Pertaining to, OTIC
Entrance: Mine, ADIT
Esau, EDOM
Escutcheon: Voided, ORLE
Eskers, OSAR
Evergreen: New Zealand, TAWA
Fairy: Persian, PERI
Family: Italian, ESTE
Far (comb. form), TELE
Farewell, VALE
Father (French), PERE
Fennel: Philippine, ANIS
Fever: Malarial, AGUE
Fiber: East Indian, JUTE
Firn, NEVE
Fish: Carplike, DACE
Hawaiian, ULUA
Herringlike, SHAD
Mackerellike, CERO
Marine, HAKE
Sea, LING, MERO, OPAH
Spiny-finned, GOBY
Food: Tropical, TARO

Foot: Metric, IAMB
Formerly, ERST
Founder: Of Carthage, DIDO
France: Southern, MIDI
Furze, ULEX
Gaelic, ERSE
Gaiter, SPAT
Game: Card, FARO, SKAT
Garlic: European wild, MOLY
Garment: Hindu, SARI
Roman, TOGA
Gazelle, CORA
Gem, JADE, ONYX, OPAL, RUBY
Genus: Amphibians (incl. frogs), RANA
Amphibians (incl. tree toads), HYLA
Antelopes, ORYX
Auks, ALCA, URIA
Bees, APIS
Birds (American ostriches), RHEA
Birds (cranes), GRUS
Birds (magpies), PICA
Birds (peacocks), PAVO
Cetaceans, INIA
Ducks (incl. mallards), ANAS
Fishes (burbots), LOTA
Fishes (incl. bowfins), AMIA
Genus: Geese (snow geese), CHEN
Gulls, XEMA
Herbs, ARUM, GEUM
Insects (water scorpions), NEPA
Lilies, ALOE
Mammals (mankind), HOMO
Orchids, DISA
Owls, ASIO, BUBO, OTUS
Palms, NIPA
Sea birds, SULA
Sheep, OVIS
Shrubs, Eurasian, ULEX
Shrubs (hollies), ILEX
Shrubs (incl. Virginia Willow), ITEA
Shrubs, tropical, EVEA
Snakes (sand snakes), ERYX
Swans, OLOR
Trees, chocolate, COLA
Trees (ebony family), MABA
Trees (incl. maples), ACER
Trees (Olives), OLEA
Trees, tropical, EVEA
Turtles, EMYS
Goat: Wild, IBEX, KRAS, TAHR, TAIR, THAR
God: Assyrian, ASUR
Babylonian, ADAD, ADDU, ENKI, ENZU, IRRA, NABU, NEBO, UTUG
Celtic, LLEU, LLEW
Hindu, AGNI, CIVA, DEVA, DEWA, KAMA, RAMA, SIVA, VAYU
Phrygian, ATYS
Semitic, BAAL
Teutonic, HLER
Goddess: Babylonian, ERUA, GULA
Hawaiian, PELE
Hindu, DEVI, KALI, SHRI, VACH
Gooseberry: Hawaiian, POHA
Gourd, PEPO
Grafted (heraldry), ENTE
Grandfather (obsolete), AIEL
Grandparents: Pertaining to, AVAL
Grass: Hawaiian, HILO
Gray (French), GRIS
Green (heraldry), VERT
Groom: Indian, SYCE
Half (prefix), DEMI, HEMI, SEMI
Hamlet, DORP
Hammer-head: Part of, PEEN
Handle, ANSA
Harp: Japanese, KOTO
Hartebeest, ASSE, TORA
Hautboy, OBOE
Hawk: Taken from nest (falconry), EYAS
Hearing (law), OYER
Heater: For liquids, ETNA
Herb: Aromatic, ANET, DILL
Fabulous, MOLY
Perennial, GEUM, SEGO
Pot, WORT
Used for blue dye, WADE, WOAD
Hill: Flat-topped, MESA
Sand, DENE, DUNE
Hoarfrost, RIME
Hog: Immature female, GILT
Holly, ILEX
House: Cow, BYRE (Spanish), CASA
Ice: Floating, FLOE
Image, ICON, IKON
Incarnation: Of Vishnu, RAMA
Indian: Algonquian, CREE, SAUK
Central American, MAYA
Iroquoian, ERIE
Mexican, CORA
Peruvian, CANA, INCA, MORO
Shoshonean, HOPI
Siouan, OTOE
Southwestern, HOPI, PIMA, YUMA, ZUNI
Insect: Immature, PUPA
Instrument: Stringed, LUTE, LYRE
Ireland, EIRE, ERIN
Jacket: English, ETON
Jail (British), GAOL
Jar, OLLA
Judge: Mohammedan, CADI
Juniper: European, CADE
Kiln, OAST, OVEN
King: British legendary, LUDD, NUDD
Kiss, BUSS
Knife: Philippine, BOLO
Koran: Section of, SURA
Laborer: Spanish American, PEON
Lake: Mountain, TARN (Scotch), LOCH
Lamp: Miner's, DAVY
Landing place: Indian, GHAT
Language: Buddhist, PALI
Japanese, AINU
Latvian, LETT
Layer: Of iris, UVEA
Leaf: Palm, OLAY, OLLA
Legislature: Ukrainian, RADA
Lemur, LORI
Leopard, PARD
Let it stand, STET
Letter: Greek, BETA, IOTA, ZETA
Hebrew, AYIN, BETH, CAPH, KOPH, RESH, SHIN, TETH, YODH
Papal, BULL
Lily, ALOE
Literature: Hindu sacred, VEDA
Lizard, GILA
Monitor, URAN
Loquat, BIWA
Magistrate: Genoese or Venetian, DOGE
Man (Latin), HOMO
Mark: Omission, DELE
Marmoset: South American, MICO
Meadow: Fertile, VEGA
Measure: Electric, VOLT, WATT
Force, DYNE
Hebrew, OMER
Printing, PICA
Spanish or Portuguese, VARA
Swiss land, IMMI
Medley, OLIO
Merganser, SMEW
Milk (French), LAIT
Molding, GULA
Curved, OGEE
Mongoose: Crab-eating, URVA

Monk: Tibetan, LAMA
Monkey: African, MONA, WAAG
Ceylonese, MAHA
Cochin-China, DOUC
South American, SAKI, TITI
Monkshood, ATIS
Month: Jewish, ADAR, ELUL, IYAR
Mother (French), MERE
Mountain: Thessaly, OSSA
Mouse: Meadow, VOLE
Mythology: Norse, EDDA
Nail (French), CLOU
Native: Philippine, MORO
Nest: Of pheasants, NIDE
Network, RETE
No (German), NEIN
Noble: Mohammedan, AMIR
Notice: Death, OBIT
Novel: By Zola, NANA
Nursemaid: Oriental, AMAH, AYAH, EYAH
Nut: Philippine, PILI
Oak: Holm, ILEX
Oil (comb. form), OLEO
Ostrich: American, RHEA
Oven, KILN, OAST
Owl: Barn, LULU
Ox: Celebes wild, ANOE
Extinct wild, URUS
Palm, ATAP, NIPA, SAGO
Parliament, DIET
Parrot: New Zealand, KAKA
Pass: Indian mountain, GHAT
Passage: Closing (music), CODA
Peach: Clingstone, PAVY
Peasant: Indian, RYOT
Old English, CARL
Pepper: Australasian, KAVA
Perfume, ATAR
Persia, IRAN
Person: Extraordinary, ONER
Pickerel or pike, ESOX
Pitcher, EWER
Plant: Aromatic, NARD
Century, ALOE
Indigo, ANIL
Pepper, KAVA
Platform: Raised, DAIS
Plum: Wild, SLOE
Pods: Vegetable, OKRA, OKRO
Poem: Epic, EPOS
Poet: Persian, OMAR
Roman, OVID
Poison, BANE
Arrow, INEE
Porkfish, SISI
Portico: Greek, STOA
Premium, AGIO
Priest: Mohammedan, IMAM
Prima donna, DIVA
Prong: Fork, TINE
Pseudonym: Lamb's, ELIA
Queen: Carthaginian, DIDO
Hindu, RANI
Rabbit, CONY
Race: Of Japan, AINU
Rail: Ducklike, COOT
North American, SORA
Redshank, CLEE
Refuse: After pressing, MARC
Regiment: Turkish, ALAI
Reliquary, ARCA
Resort: Italian, LIDO
Ridges: Sandy, ASAR, OSAR
River: German, ELBE, ODER
Italian, ADDA
Siberian, LENA
Road: Roman, ITER
Rockfish: California, RENA
Rodent: Mouselike, VOLE
South American, PACA
Rootstock, TARO
Salamander, NEWT
Salmon: Silver, COHO
Young, PARR
Same (Greek), HOMO
(Latin), IDEM
Sauce: Fish, ALEC
School: English, ETON
Seaweed, AGAR, ALGA, KELP
Secular, LAIC
Sediment, SILT
Seed: Dill, ANET
Of vetch, TARE
Serf, ILOT
Sesame, TEEL
Settlement: Eskimo, ETAH
Shark: Atlantic, GATA
European, TOPE
Sheep: Wild, UDAD
Sheltered, ALEE
Shield, EGIS
Ship: Jason's, ARGO
Left side of, PORT
Two-masted, BRIG
Shrine: Buddhist, TOPE
Shrub: New Zealand, TUTU
Sign: Magic, RUNE
Silkworm, ERIA
Skin: Beaver, PLEW
Skink: Egyptian, ADDA
Slave, ESNE
Sloth: Two-toed, UNAU
Smooth, LENE
Snow: Glacial, NEVE
Soapstone, TALC
Society: African secret, EGBO, PORO
Son: Of Seth, ENOS
Song (German), LIED
Unaccompanied, GLEE
Sound: Lung, RALE
Sour, ACID
Sow: Young, GILT
Spike: Brad-shaped, BROB
Spirit: Buddhist evil, MARA
Stake: Poker, ANTE
Star: Temporary, NOVA
Starch: East Indian, SAGO
Stone: Precious, OPAL
Strap: Bridle, REIN
Strewn (heraldry), SEME
Sweetsop, ATES, ATTA
Sword: Fencing, EPEE, FOIL
Tambourine: African, TAAR
Tapir: Brazilian, ANTA
Tax, CESS
Tea: South American, MATE
Therefore (Latin), ERGO
Thing: Extraordinary, ONER
Three (dice, cards, etc.), TREY
Thrush: Hawaiian, OMAO
Tide, NEAP
Tipster: Racing, TOUT
Tissue, TELA
Title: Etruscan, LARS
Hindu, BABU
Indian, RAJA
Mohammedan, EMIR, IMAM
Persian, BABA
Spanish, DONA
Turkish, AGHA, BABA
Toad: Largest known, AGUA
Tree, HYLA
Tool: Cutting, ADZE
Track: Deer, SLOT
Tract: Sandy, DENE
Tree: Apple, SORB
Central American, EBOE
East Indian, TEAK
Eucalyptus, YATE
Guiana and Trinidad, MORA
Javanese, UPAS
Linden, LIME, LINN, TEIL, TILL
Sandarac, ARAR
Sassafras, AGUE
Tamarisk salt, ATLE
Tribe: Moro, SULU
Trout, CHAR
Urchin: Street, ARAB
Vessel: Arab, DHOW
Vestment: Ecclesiastical, COPE
Vetch, TARE
Vine: East Indian, SOMA
Violinist: Famous, AUER
Vortex, EDDY
Wampum, PEAG
Wapiti, STAG
Waste: Allowance for, TRET
Watchman: Indian, MINA
Water (Spanish), AGUA
Waterfall, LINN
Wavy (heraldry), ONDE, UNDE
Wax, CERE
Chinese, PELA

Weed: Biblical, TARE
Weight: Ancient, MINA
  Danish (pl.), ESER
  East Asian, TAEL
  Greek, MINA
  Siamese, BAHT
Well done (rare), EUGE
Whale, CETE
  Killer, ORCA
  White, HUSE, HUSO
Whirlpool, EDDY
Wife: Of Geraint, ENID
Willow: Virginia, ITEA
Wine, PORT
Winged, ALAR
  (Heraldry), AILE
Wings, ALAE
Withered, SERE
Without (French), SANS
Wool: To comb, CARD
Work, OPUS
Wrong: Civil, TORT
Young: Bring forth, YEAN

Words of Five Letters

Abode of dead: Babylonian, ARALU
Aborigine: Borneo, DAYAK
Aftersong, EPODE
Aloe, AGAVE
Animal: Footless, APODE
Ant, EMMET
Antelope: African, ADDAX, BEISA, CAAMA, ELAND, GUIBA, ORIBI, TIANG
  Goat, GORAL, SEROW
  Indian, SASIN
  Siberian, SAIGA
Arch: Pointed, OGIVE
Armadillo, APARA, POYOU, TATOU
Arrowroot, ARARU
Artery: Trunk, AORTA
Association: Russian, ARTEL
  Secret, CABAL
Author: English, READE
Automaton, GOLEM, ROBOT
Award: Motion-picture, OSCAR
Basket: Fishing, CREEL
Beer: Russian, KVASS
Bible: Mohammedan, KORAN
Bird: Asian, MINAH, MYNAH
  Indian, SHAMA
  Larklike, PIPIT
  Loonlike, GREBE
  Oscine, VIREO
  South American, AGAMI
  Swimming, GREBE
Black: (French), NOIRE
  (Heraldry), SABLE
Blackbird: European, MERLE, OUSEL, OUZEL
Block: Glacial, SERAC
Blue (heraldry), AZURE
Boat: Eskimo, BIDAR, UMIAK
Bobwhite, COLIN, QUAIL
Bone (comb. form), OSTEO
  Leg, TIBIA
  Thigh, FEMUR
Broom: Twig, BESOM
Brother (French), FRERE
  Moses', AARON
Canoe: Eskimo, BIDAR, KAYAK
Cape: Papal, FANON, ORALE
Caravansary, SERAI
Card: Old playing, TAROT
Caterpillar: New Zealand, AWETO
Catkin, AMENT
Cavity: Stone, GEODE
Cephalopod, SQUID
Cetacean, WHALE
Chariot, ESSED
Cheek: Pertaining to, MALAR
Chieftain: Arab, EMEER
Child (Scotch), BAIRN
Cigar, CLARO
Coating: Seed, TESTA
Cockatoo: Palm, ARARA
Coin: Costa Rican, COLON
  Danish, KRONE
  Ecuadorian, SUCRE
  English, GROAT, PENCE
  French, FRANC
  German, KRONE, TALER
  Hungarian, PENGO
  Icelandic, KRONA
  Indian, RUPEE
  Iraqi, DINAR
  Norwegian, KRONE
  Polish, ZLOTY
  Russian, COPEC, KOPEK, RUBLE
  Swedish, KRONA
  Turkish, ASPER
  Yugoslav, DINAR
Collar: Papal, FANON, ORALE
  Roman, RABAT
Commune: Italian, TREIA
Composition: Choral, MOTET
Compound: Chemical, ESTER
Conceal (law), ELOIN
Council: Ecclesiastical, SYNOD
Court: Anglo-Saxon, GEMOT
  Inner, PATIO
Crest: Mountain, ARETE
Crown: Papal, TIARA
Cuttlefish, SEPIA
Date: Roman, NONES
Decree: Mohammedan, IRADE
  Russian, UKASE
Deposit: Loam, LOESS
Desert: Gobi, SHAMO
Devilfish, MANTA
Disease: Cereals, ERGOT
Disk, PATEN
Dog: Wild, DHOLE, DINGO
Dormouse, LEROT
Drum, TABOR
Duck: Sea, EIDER
Dynasty: Chinese, CHING, LIANG, SHANG
Earthquake, SEISM
Eel, ELVER, MORAY
Ermine: European, STOAT
Ether: Crystalline, APIOL
Fabric: Velvetlike, PANNE
Fabulist, AESOP
Family: Italian, CENCI
Fiber: West Indian, SISAL
Fig: Smyrna, ELEME, ELEMI
Figure: Of speech, TROPE
Finch: European, SERIN
Fish: American small, KILLY
Flower: Garden, ASTER
Friend (Spanish), AMIGO

Fruit: Tropical, MANGO
Fungus: Rye, ERGOT
Furze, GORSE
Gateway, TORAN, TORII
Gem, AGATE, BERYL, PEARL, TOPAZ
Genus: Barnacles, LEPAS
Bears, URSUS
Birds (loons), GAVIA
Birds (nuthatches), SITTA
Cats, FELIS
Dogs, CANIS
Fishes (chiros), ELOPS
Fishes (perch), PERCA
Geese, ANSER
Grasses, STIPA
Grasses (incl. oats), AVENA
Gulls, LARUS
Hares, rabbits, LEPUS
Hawks, BUTEO
Herbs, old world, INULA
Herbs, trailing or climbing, APIOS
Herbs, tropical, TACCA, URENA
Horses, EQUUS
Insects (olive flies), DACUS
Lice, plant, APHIS
Lichens, USNEA
Lizards, AGAMA
Moles, TALPA
Mollusks, OLIVA
Monkeys, CEBUS
Palms, ARECA
Pigeons, GOURA
Plants (amaryllis family), AGAVE
Ruminants (goats), CAPRA
Shrubs, Asiatic, SABIA
Shrubs (heath), ERICA
Shrubs (incl. raspberry), RUBUS
Shrubs, tropical, IXORA, TREMA, URENA
Ticks, ARGAS
Trees (of elm family), TREMA, ULMUS
Trees, tropical, IXORA, TREMA
Goat: Bezoar, PASAN
God: Assyrian, ASHIR, ASHUR, ASSUR
Babylonian, DAGAN, SIRIS
Gaelic, DAGDA
Hindu, BHAGA, INDRA, SHIVA
Japanese, EBISU
Philistine, DAGON
Phrygian, ATTIS
Teutonic, AEGIR, GYMIR
Welsh, DYLAN
Goddess: Babylonian, ISTAR, NANAI
Hindu, DURGA, GAURI, SHREE
Group: Of six, HEXAD
Grove: Sacred to Diana, NEMUS
Growing out, ENATE
Guitar: Hindu, SITAR
Gull: PEWEE, PEWIT
Hartebeest, CAAMA
Headdress: Jewish or Persian, TIARA
Liturgical, MITER, MITRE
Heath, ERICA
Herb: Grasslike marsh, SEDGE
Heron, EGRET
Hog: Young, SHOAT, SHOTE
Image, EIKON
Indian: Cariban, ARARA
Iroquoian, HURON
Mexican, AZTEC, OPATA, OTOMI
Muskhogean, CREEK
Siouan, OSAGE, TETON
Spanish American, ARARA, CARIB
Inflorescence: Racemose, AMENT
Insect: Immature, LARVA
Intrigue, CABAL
Iris: Yellow, SEDGE
Juniper, GORSE, RETEM
Kidneys: Pertaining to, RENAL
King: British legendary, LLUDD
Kite: European, GLEDE
Kobold, NISSE
Land: Cultivated, ARADA, ARADO
Landholder (Scotch), LAIRD, THANE
Language: Dravidian, TAMIL
Lariat, LASSO, REATA
Laughing, RIANT
Lawgiver: Athenian, DRACO, SOLON
Leaf: Calyx, SEPAL
Fern, FROND
Lemur, LORIS
Letter: English, AITCH
Greek, ALPHA, DELTA, GAMMA, KAPPA, OMEGA, SIGMA, THETA
Hebrew, ALEPH, CHETH, GIMEL, SADHE, ZAYIN
Lichen, USNEA
Lighthouse, PHARE
Lizard: Old World, AGAMA
Loincloth, DHOTI
Louse: Plant, APHID
Macaw: Brazilian, ARARA
Mahogany: Philippine, ALMON
Mammal: Badgerlike, RATEL
Civetlike, GENET
Giraffelike, OKAPI
Raccoonlike, COATI
Man (French), HOMME
Marble, AGATE
Mark: Insertion, CARET
Market place: Greek, AGORA
Marsupial: Australian, KOALA
Measure: Electric, FARAD, HENRY
Energy, JOULE
Metric, LITER, STERE
Printing, AGATE
Russian, VERST
Mixture: Smelting, MATTE
Mohicans: Last of, UNCAS
Molding: Convex, OVOLO, TORUS
Mole, TALPA
Monkey: African, PATAS
Capuchin, SAJOU
Howling, ARABA
Monkshood, ATEES
Month: Jewish, NISAN, SIVAN, TEBET
Museum (French), MUSEE
Musketeer, ATHOS
Native: Aleutian, ALEUT
New Zealand, MAORI
Neckpiece: Ecclesiastical, AMICE
Nerve (comb. form), NEURO
Nest: Eagle's or hawk's, AERIE
Insect's, NIDUS
Net: Fishing, SEINE
Newsstand, KIOSK

Nitrogen, AZOTE
Noble: Mohammedan, AMEER
Nodule: Stone, GEODE
Nostrils, NARES
Notched irregularly, EROSE
Nymph: Mohammedan, HOURI
Official: Roman, EDILE
Oleoresin, ELEMI
Opening: Mouthlike, STOMA
Oration: Funeral, ELOGE
Ostiole, STOMA
Page: Left-hand, VERSO
  Right-hand, RECTO
Palm, ARECA, BETEL
Park: Colorado, ESTES
Perfume, ATTAR
Philosopher: Greek, PLATO
Pillar: Stone, STELA, STELE
Pinnacle: Glacial, SERAC
Plain, LLANO
Plant: Century, AGAVE
  Climbing, LIANA
  Dwarf, CUMIN
  East Asian perennial, RAMIE
  Medicinal, SENNA
  Mustard family, CRESS
Plate: Communion, PATEN
Poem: Lyric, EPODE
Point: Lowest, NADIR
Poplar, ABELE, ALAMO, ASPEN
Porridge: Spanish American, ATOLE
Post: Stair, NEWEL
Priest: Mohammedan, IMAUM
Protozoan, AMEBA
Queen: (French), REINE
  Hindu, RANEE
Rabbit, CONEY
Rail, CRAKE
Red (heraldry), GULES
Religion: Moslem, ISLAM
Resin, ELEMI
Revoke (law), ADEEM
Rich man, MIDAS, NABOB
Ridge: Sandy, ESKAR, ESKER
River: French, LOIRE, SEINE
Rockfish: California, REINA
Rootstock: Fragrant, ORRIS
Ruff: Female, REEVE
Sack: Pack, KYACK
Salt: Ethereal, ESTER
Saltpeter, NITER, NITRE
Salutation: Eastern, SALAM
Sandpiper: Old World, TEREK
Scented, OLENT
School: Fish, SHOAL
  French public, LYCEE
Scriptures: Mohammedan, KORAN
Seaweeds, ALGAE
Seed: Aromatic, ANISE
Seraglio, HAREM, SERAI
Serf, HELOT
Sheep: Wild, AUDAD
Sheeplike, OVINE
Shield, AEGIS
Shoe: Wooden, SABOT
Shoots: Pickled bamboo, ACHAR
Shot: Billiard, CAROM, MASSE
Shrine: Buddhist, STUPA
Shrub: Burning bush, WAHOO
  Ornamental evergreen, TOYON
  Used in tanning, SUMAC
Silk: Watered, MOIRE
Sister (French), SOEUR
  (Latin), SOROR
Six: Group of, HEXAD
Skeleton: Marine, CORAL
Slave, HELOT
Snake, ABOMA, ADDER, COBRA, RACER
Soldier: French, POILU
  Indian, SEPOY
Sour, ACERB
Spirit: Air, ARIEL
Staff: Shepherd's, CROOK
Starwort, ASTER
Steel (German), STAHL
Stockade: Russian, ETAPE
Stop (nautical), AVAST
Storehouse, ETAPE
Subway: Parisian, METRO
Tapestry, ARRAS
Tea: Paraguayan, YERBA
Temple: Hawaiian, HEIAU
Terminal: Positive, ANODE
Theater: Greek, ODEON, ODEUM
Then (French), ALORS
Thread: Surgical, SETON
Thrush: Wilson's, VEERY
Title: Hindu, BABOO
  Indian, RAJAH, SAHEB, SAHIB
  Mohammedan, EMEER, IMAUM
Tree: Buddhist sacred, PIPAL
  East Indian cotton, SIMAL
  Hickory, PECAN
  Light-wooded, BALSA
  Malayan, TERAP
  Mediterranean, CAROB
  Mexican, ABETO
  Mexican pine, OCOTE
  New Zealand, MAIRE
  Philippine, ALMON
  Rain, SAMAN
  South American, UMBRA
  Tamarack, LARCH
  Tamarisk salt, ATLEE
  West Indian, ACANA
Trout, CHARR
Troy, ILION, ILIUM
Twin: Siamese, CHANG
Vestment: Ecclesiastical, STOLE
Violin: Famous, AMATI, STRAD
Volcano: Mud, SALSE
Wampum, PEAGE
War cry: Greek, ALALA
Wavy (heraldry), UNDEE
Weight: Jewish, GERAH
Wen, TALPA
Wheat, SPELT
Wheel: Persian water, NORIA
Whitefish, CISCO
Willow, OSIER
Window: Bay, ORIEL
Wine, MEDOC, RHINE, TINTA, TOKAY
Winged, ALATE
Woman (French), FEMME
Year: Excess of solar over lunar, EPACT
Zoroastrian, PARSI

Words of Six or More Letters

Agave, MAGUEY
Alkaloid: Crystalline, ESERIN, ESERINE
Alligator, CAYMAN
Amphibole, EDENITE, URALITE
Ant: White, TERMITE
Antelope: African, DIKDIK, DUIKER, GEMSBOK, IMPALA, KOODOO
European, CHAMOIS
Indian, NILGAI, NILGAU, NILGHAI, NILGHAU
Ape: Asian or East Indian, GIBBON
Appendage: Leaf, STIPEL, STIPULE
Armadillo, PELUDO, TATOUAY
Arrowroot, ARARAO
Ascetic: Jewish, ESSENE
Ass: Asian wild, ONAGER
Avatar: Of Vishnu, KRISHNA
Babylonian, ELAMITE
Badge: Shoulder, EPAULET
Baldness, ALOPECIA
Barracuda, SENNET
Bark: Aromatic, SINTOC
Bearlike, URSINE
Beetle, ELATER
Bible: Zoroastrian, AVESTA
Bird: Sea, PETREL
South American, SERIEMA
Wading, AVOCET, AVOSET
Bone: Leg, FIBULA
Branched, RAMATE
Brother (Latin), FRATER
Bunting: European, ORTOLAN
Call: Trumpet, SENNET
Canoe: Eskimo, BAIDAR, OOMIAK
Caravansary, IMARET
Cat: Asian or African, CHEETAH
Leopardlike, OCELOT
Cenobite: Jewish, ESSENE
Centerpiece: Table, EPERGNE
Cetacean, DOLPHIN, PORPOISE
Chariot, ESSEDA, ESSEDE
Chief: Seminole, OSCEOLA
Claim: Release as (law), REMISE
Clock: Water, CLEPSYDRA
Cloud, CUMULUS, NIMBUS
Coach: French hackney, FIACRE
Coin: Czech, KORUNA
Ethiopian, TALARI
Finnish, MARKKA
German, THALER
Greek, DRACHMA
Haitian, GOURDE
Honduran, LEMPIRA
Hungarian, FORINT
Indo-Chinese, PIASTER
Netherlands, GUILDER
Panamanian, BALBOA
Paraguayan, GUARANI
Portuguese, ESCUDO
Russian, COPECK, KOPECK, ROUBLE
Spanish, PESETA
Venezuelan, BOLIVAR
Communion: Last holy, VIATICUM
Conceal (law), ELOIGN
Confection, PRALINE
Construction: Sentence, SYNTAX
Convexity: Shaft of column, ENTASIS
Court: Anglo-Saxon, GEMOTE
Cow: Sea, DUGONG, MANATEE
Cylindrical, TERETE
Dagger, STILETTO
Malay, CREESE, KREESE
Date: Roman, CALENDS, KALENDS
Deer, CARIBOU, WAPITI
Disease: Plant, ERINOSE
Doorkeeper, OSTIARY
Dragonflies: Order of, ODANATA
Drink: Of gods, NECTAR
Drum: TABOUR
Moorish, ATABAL, ATTABAL
Duck: Fish-eating, MERGANSER
Sea, SCOTER
Dynasty: Chinese, MANCHU
Eel, CONGER
Edit, REDACT
Envelope: Flower, PERIANTH
Eskimo, AMERIND
Ether: Crystalline, APIOLE
Excuse (law), ESSOIN
Eyespots, OCELLI
Fabric, ESTAMENE, ESTAMIN, ETAMINE
Falcon: European, KESTREL
Figure: Used as column, CARYATID, TELAMON
Fine: For punishment, AMERCE
Fish: Asian fresh-water, GOURAMI
Pikelike, BARRACUDA
Five: Group of, PENTAD
Fly: African, TSETSE
Foot: Metric, ANAPEST, IAMBUS
Foxlike, VULPINE
Frying pan, SPIDER
Fur, KARAKUL
Galley: Greek or Roman, BIREME, TRIREME
Game: Card, ECARTE
Garment: Greek, CHLAMYS
Gateway, GOPURA, TORANA
Genus: Birds (ravens, crows), CORVUS
Eels, CONGER
Fishes, ANABAS
Foxes, VULPES
Herbs, ANEMONE
Insects, CICADA
Lemurs, GALAGO
Mints (incl. catnip), NEPETA
Mollusks, ANOMIA, ASTARTE, TERED
Mollusks (incl. oysters), OSTREA
Monkeys (spider monkeys), ATELES
Thrushes (incl. robins), TURDUS
Trees (of elm family), CELTIS
Trees (incl. dogwood), CORNUS
Trees, tropical American, SAPOTA
Wrens, NANNUS
Gibbon, SIAMANG, WOUWOU
Gland: Salivary, RACEMOSE
Goat: Bezoar, PASANG
Goatlike, CAPRINE
God: Assyrian, ASHSHUR, ASSHUR
Babylonian, BABBAR, MARDUK, MERO DACH, NANNAR, NERGAL, SHAMAS
Hindu, BRAHMA, KRISHNA, VISHNU
Tahitian, TAAROA
Goddess: Babylonian, ISHTAR

Hindu, CHANDI, HAIMAVATI, LAKSHMI, PARVATI, SARASVATI, SARASWATI
Government, POLITY
Governor: Persian, SATRAP
Grandson (Scotch), NEPOTE
Group: Of five, PENTAD
Of nine, ENNEAD
Of seven, HEPTAD
Hare: In first year, LEVERET
Harpsichord, SPINET
Herb: Alpine, EDELWEISS
Chinese, GINSENG
South African, FREESIA
Hermit, EREMITE
Hero: Legendary, PALADIN
Heron, BITTERN
Horselike, EQUINE
Hound: Short-legged, BEAGLE
House (French), MAISON
Idiot, CRETIN
Implement: Stone, NEOLITH
Incarnation: Hindu, AVATAR
Indian, APACHE, COMMANCHE, PAIUTE, SENECA
Inn: Turkish, IMARET
Insects: Order of, DIPTERA
Instrument: Japanese banjolike, SAMISEN
Musical, CLAVIER, SPINET
Interstice, AREOLA
Ironwood, COLIMA
Juniper: Old Testament, RAETAM
Kettledrum, ATABAL
King: Fairy, OBERON
Kneecap, PATELLA
Knife, MACHETE
Langur: Sumatran, SIMPAI
Legislature: Spanish, CORTES
Lemur: African, GALAGO
Madagascar, AYEAYE
Letter: Greek, EPSILON, LAMBDA, OMICRON, UPSILON
Hebrew: DALETH, LAMEDH, SAMEKH
Lighthouse, PHAROS
Lizard, IGUANA
Llama, ALPACA
Lockjaw, TETANUS
Locust, CICADA, CICALA
Macaw: Brazilian, MARACAN
Maid: Of Astolat, ELAINE
Mammal: Madagascar, TENDRAC, TENREC
Man (Spanish), HOMBRE
Marmoset: South American, TAMARIN
Marsupial, BANDICOOT, WOMBAT
Massacre, POGROM
Mayor: Spanish, ALCALDE
Measure: Electric, AMPERE, COULOMB, KILOWATT
Medicine: Quack, NOSTRUM
Member: Religious order, CENOBITE
Molasses, TREACLE
Monkey: African, GRIVET, NISNAS
Asian, LANGUR
Philippine, MACHIN
South American, PINCHE, SAIMIRI, SAMIRI, SAPAJOU
Monster, CHIMERA, GORGON
(Comb. form), TERATO
Cretan, MINOTAUR
Month: Jewish, HESHVAN, KISLEV, SHEBAT, TAMMUZ, TISHRI, VEADAR
Mountain: Asia Minor, ARARAT
Mulct, AMERCE
Musketeer, ARAMIS, PORTHOS
Nearsighted, MYOPIC
Net, TRAMMEL
New York City, GOTHAM
Nine: Group of, ENNEAD
Nobleman: Spanish, GRANDEE
Official: Roman, AEDILE
Onyx: Mexican, TECALI
Order: Dragonflies, ODANATA
Insects, DIPTERA
Organ: Plant, PISTIL
Ornament: Shoulder, EPAULET
Overcoat: Military, CAPOTE
Ox: Wild, BANTENG
Oxidation: Bronze or copper, PATINA
Paralysis: Incomplete, PARESIS
Pear: Alligator, AVOCADO
Persimmon: Mexican, CHAPOTE
Pipe: Peace, CALUMET
Plaid (Scotch), TARTAN
Plain, PAMPAS, STEPPE, TUNDRA
Plant: Buttercup family, ANEMONE
Century, MAGUEY
On rocks, LICHEN
Plowing: Fit for, ARABLE
Poem: Heroic, EPOPEE
Six-lined, SESTET
Point: Highest, ZENITH
Potion: Love, PHILTER, PHILTRE
Protozoan, AMOEBA
Punish, AMERCE
Purple (heraldry), PURPURE
Queen: Fairy, TITANIA
Race: Skiing, SLALOM
Rat, BANDICOOT, LEMMING
Retort, RIPOST, RIPOSTE
Ring: Harness, TERRET
Little, ANNULET
Rodent: Jumping, JERBOA
Spanish American, AGOUTI, AGOUTY
Sailor: East Indian, LASCAR
Salmon: Young, GRILSE
Salutation: Eastern, SALAAM
Sandpiper, PLOVER
Sandy, ARENOSE
Sapodilla, SAPOTA, SAPOTE
Saw: Surgical, TREPAN
Seven: Group of, HEPTAD
Sexes: Common to both, EPICENE
Shawl: Mexican, SERAPE
Sheathing: Flower, SPATHE
Sheep: Wild, AOUDAD, ARGALI
Shipworm, TEREDO
Shoes: Mercury's winged, TALARIA
Shortening: Syllable, SYSTOLE
Shrub, SPIRAEA
Sickle-shaped, FALCATE
Silver (heraldry), ARGENT
Snake, ANACONDA
Speech: Loss of, APHASIA
Spiral, HELICAL
Staff: Bishop's, CROSIER, CROZIER

Stalk: Plant, PETIOLE
State: Swiss, CANTON
Studio, ATELIER
Swan: Young, CYGNET
Swimming, NATANT
Sword-shaped, ENSATE
Terminal: Negative, CATHODE
Third (music), TIERCE
Thrust: Fencing, RIPOST, RIPOSTE
Tile: Pertaining to, TEGULAR
Tomb: Empty, CENOTAPH
Tooth (comb. form), ODONTO
Tower: Mohammedan, MINARET
Tree: African timber, BAOBAB
Black gum, TUPELO
East Indian, MARGOSA
Locust, ACACIA
Malayan, SINTOC
Marmalade, SAPOTE
Urn: Tea, SAMOVAR
Vehicle, LANDAU, TROIKA
Verbose, PROLIX
Viceroy: Egyptian, KHEDIVE
Vulture: American, CONDOR
Warehouse (French), ENTREPOT
Whale: White, BELUGA
Whirlpool, VORTEX
Will: Addition to, CODICIL
Having left, TESTATE
Wind, CHINOOK, MONSOON, SIMOOM, SIMOON, SIROCCO
Window: In roof, DORMER
Wine, BARBERA, BURGUNDY, CABERNET, CHABLIS, CHIANTI, CLARET, MUSCATEL, RIESLING, SAUTERNE, SHERRY, ZINFANDEL
Wolfish, LUPINE
Woman: Boisterous, TERMAGANT
Woolly, LANATE
Workshop, ATELIER
Zoroastrian, PARSEE

Old-Testament Names

(We do not pretend that this list is all-inclusive. We include only those names which in our opinion one meets most often in crossword puzzles.)

AARON: First high priest of Jews; son of Amram; brother of Miriam and Moses; father of Abihu, Eleazer, Ithamar, and Nadab.

ABEL: Son of Adam; slain by Cain.

ABIGAIL: Wife of Nabal; later, wife of David.

ABIHU: Son of Aaron.

ABIMELECH: King of Gerar.

ABNER: Commander of army of Saul and Ishbosheth; slain by Joab.

ABRAHAM (or ABRAM): Patriarch; forefather of the Jews; son of Terah; husband of Sarah; father of Isaac and Ishmael.

ABSALOM: Son of David and Maacah; revolted against David; slain by Joab.

ACHISH: King of Gath; gave refuge to David.

ACHSA (or ACHSAH): Daughter of Caleb; wife of Othniel.

ADAH: Wife of Lamech.

ADAM: First man; husband of Eve; father of Cain, Abel, and Seth.

ADONIJAH: Son of David and Haggith.

AGAG: King of Amalek; spared by Saul; slain by Samuel.

AHASUERUS: King of Persia; husband of Vashti and, later, Esther; sometimes identified with Xerxes the Great.

AHIJAH: Prophet; foretold accession of Jeroboam.

AHINOAM: Wife of David.

AMASA: Commander of army of David; slain by Joab.

AMNON: Son of David and Ahinoam; ravished Tamar; slain by Absalom.

AMRAM: Husband of Jochebed; father of Aaron, Miriam and Moses.

ASENATH: Wife of Joseph.

ASHER: Son of Jacob and Zilpah.

BALAAM: Prophet; rebuked by his donkey for cursing God.

BARAK: Jewish captain; associated with Deborah.

BARUCH: Secretary to Jeremiah.

BATHSHEBA: Wife of Uriah; later, wife of David.

BELSHAZZAR: Crown prince of Babylon.

BENAIAH: Warrior of David; proclaimed Solomon King.

BEN-HADAD: Name of several kings of Damascus.

BENJAMIN: Son of Jacob and Rachel.

BEZALEEL: Chief architect of tabernacle.

BILDAD: Comforter of Job.

BILHAH: Servant of Rachel; mistress of Jacob.

BOAZ: Husband of Ruth; father of Obed.

CAIN: Son of Adam and Eve; slayer of Abel; father of Enoch.

CAINAN: Son of Enos.

CALEB: Spy sent out by Moses to visit Canaan; father of Achsa.

CANAAN: Son of Ham.

CHILION: Son of Elimelech; husband of Orpah.

CUSH: Son of Ham; father of Nimrod.

DAN: Son of Jacob and Bilhah.

DANIEL: Prophet; saved from lions by God.

DEBORAH: Hebrew prophetess; helped Israelites conquer Canaanites.

DELILAH: Mistress and betrayer of Samson.

ELAM: Son of Shem.

ELEAZAR: Son of Aaron; succeeded him as high priest.

ELI: High priest and judge; teacher of Samuel; father of Hophni and Phinehas.

ELIAKIM: Chief minister of Hezekiah.

ELIEZER: Servant of Abraham.

ELIHU: Comforter of Job.

ELIJAH (or ELIAS): Prophet; went to heaven in chariot of fire.

ELIMELECH: Husband of Naomi; father of Chilion and Mahlon.

ELIPHAZ: Comforter of Job.

ELISHA (or ELISEUS): Prophet; successor of Elijah.

ELKANAH: Husband of Hannah; father of Samuel.

ENOCH: Son of Cain.

ENOCH: Father of Methuselah.

ENOS: Son of Seth; father of Cainan.

EPHRAIM: Son of Joseph.

ESAU: Son of Isaac and Rebecca; sold his birthright to his brother Jacob.

ESTHER: Jewish wife of Ahasuerus; saved Jews from Haman's plotting.

EVE: First woman; created from rib of Adam.

EZRA (or ESDRAS): Hebrew scribe and priest.

GAD: Son of Jacob and Zilpah.

GEHAZI: Servant of Elisha.

GIDEON: Israelite hero; defeated Midianites.

GOLIATH: Philistine giant; slain by David.

HAGAR: Handmaid of Sarah; concubine of Abraham; mother of Ishmael.

HAGGITH: Mother of Adonijah.

HAM: Son of Noah; father of Cush, Mizraim, Phut, and Canaan.

HAMAN: Chief minister of Ahasuerus; hanged on gallows prepared for Mordecai.

HANNAH: Wife of Elkanah; mother of Samuel.

HANUN: King of Ammonites.

HARAN: Brother of Abraham; father of Lot.

HAZAEL: King of Damascus.

HEPHZI-BAH: Wife of Hezekiah; mother of Mannaseh.

HIRAM: King of Tyre.

HOLOFERNES: General of Nebuchadnezzar; slain by Judith.

HOPHNI: Son of Eli.

ISAAC: Hebrew patriarch; son of Abraham and Sarah; half brother of Ishmael; husband of Rebecca; father of Esau and Jacob.

ISHMAEL: Son of Abraham and Hagar; half brother of Isaac.

ISSACHAR: Son of Jacob and Leah.

ITHAMAR: Son of Aaron.

JABAL: Son of Lamech and Adah.

JABIN: King of Hazor.

JACOB: Hebrew patriarch, founder of Israel; son of Isaac and Rebecca; husband of Leah and Rachel; father of Asher, Benjamin, Dan, Gad, Issachar, Joseph, Judah, Levi, Naphtali, Reuben, Simeon, and Zebulun.

JAEL: Slayer of Sisera.

JAPHETH: Son of Noah.

JEHOIADA: High priest; husband of Jehoshabeath; revolted against Athaliah and made Joash King of Judah.

JEHOSHABEATH (or JEHOSHEBA): Daughter of Jehoram of Judah; wife of Jehoiada.

JEPHTHAH: Judge in Israel; sacrificed his only daughter because of vow.

JESSE: Son of Obed; father of David.

JETHRO: Midianite priest; father of Zipporah.

JEZEBEL: Phoenician princess; wife of Ahab; mother of Ahaziah, Athaliah, and Jehoram.

JOAB: Commander in chief under David; slayer of Abner, Absalom, and Amasa.

JOB: Patriarch; underwent many afflictions; comforted by Bildad, Elihu, Eliphaz and Zophar.

JOCHEBED: Wife of Amram.

JONAH: Prophet; cast into sea and swallowed by great fish.

JONATHAN: Son of Saul; friend of David.

JOSEPH: Son of Jacob and Rachel; sold into slavery by his brothers; husband of Asenath; father of Ephraim and Manassah.

JOSHUA: Successor of Moses; son of Nun.

JUBAL: Son of Lamech and Adah.

JUDAH: Son of Jacob and Leah.

JUDITH: Slayer of Holofernes.

KISH: Father of Saul.

LABAN: Father of Leah and Rachel.

LAMECH: Son of Methuselah; father of Noah.

LAMECH: Husband of Adah and Zillah; father of Jabal, Jubal, and Tubal-Cain.

LEAH: Daughter of Laban; wife of Jacob.

LEVI: Son of Jacob and Leah.

LOT: Son of Haran; escaped destruction of Sodom.

MAACAH: Mother of Absalom and Tamar.

MAHLON: Son of Elimelech; first husband of Ruth.

MANASSEH: Son of Joseph.

MELCHIZEDEK: King of Salem.

METHUSELAH: Patriarch; son of Enoch; father of Lamech.

MICHAL: Daughter of Saul; wife of David.

MIRIAM: Prophetess; daughter of Amram; sister of Aaron and Moses.

MIZRAIM: Son of Ham.

MORDECAI: Uncle of Esther; with her aid, saved Jews from Haman's plotting.

MOSES: Prophet and lawgiver; son of Amram; brother of Aaron and Miriam; husband of Zipporah.

NAAMAN: Syrian captain; cured of leprosy by Elisha.

NABAL: Husband of Abigail.

NABOTH: Owner of vineyard; stoned to death because he would not sell it to Ahab.

NADAB: Son of Aaron.

NAHOR: Father of Terah.

NAOMI: Wife of Elimelech; mother-in-law of Ruth.
NAPHTALI: Son of Jacob and Bilhah.
NATHAN: Prophet; reproved David for causing Uriah's death.
NEBUCHADNEZZAR (or NEBUCHADREZZAR): King of Babylon; destroyer of Jerusalem.
NEHEMIAH: Jewish leader; empowered by Artaxerxes to rebuild Jerusalem.
NIMROD: Mighty hunter; son of Cush.
NOAH: Patriarch; Son of Lamech; escaped Deluge by building Ark; father of Ham, Japheth and Shem.
NUN (or NON): Father of Joshua.
OBED: Son of Boaz; father of Jesse.
OG: King of Bashan.
ORPAH: Wife of Chilion.
OTHNIEL: Kenezite; judge of Israel; husband of Achsa.
PHINEHAS: Son of Eleazer.
PHINEHAS: Son of Eli.
PHUT (or PUT): Son of Ham.
POTIPHAR: Egyptian official; bought Joseph.
RACHEL: Wife of Jacob.
REBECCA (or REBEKAH): Wife of Isaac.
REUBEN: Son of Jacob and Leah.
RUTH: Wife of Mahlon, later of Boaz; daughter-in-law of Naomi.
SAMSON: Judge of Israel; famed for strength; betrayed by Delilah.
SAMUEL: Hebrew judge and prophet; son of Elkanah.
SARAH (or SARA, SARAI): Wife of Abraham.
SENNACHERIB: King of Assyria.
SETH: Son of Adam; father of Enos.
SHEM: Son of Noah; father of Elam.
SIMEON: Son of Jacob and Leah.
SISERA: Canaanite captain; slain by Jael.
TAMAR: Daughter of David and Maachah; ravished by Amnon.
TERAH: Son of Nahor; father of Abraham.
TUBAL-CAIN: Son of Lamech and Zillah.
URIAH: Husband of Bathsheba; sent to death in battle by David.
VASHTI: Wife of Ahasuerus; set aside by him.
ZADOK: High priest during David's reign.
ZEBULUN (or ZABULON): Son of Jacob and Leah.
ZILLAH: Wife of Lamech.
ZILPAH: Servant of Leah; mistress of Jacob.
ZIPPORAH: Daughter of Jethro; wife of Moses.
ZOPHAR: Comforter of Job.

Kings of Judah and Israel

Kings Before Division of Kingdom

SAUL: First King of Israel; son of Kish; father of Ish-Bosheth, Jonathan and Michal.
ISH-BOSHETH (or ESHBAAL): King of Israel; son of Saul.
DAVID: King of Judah; later of Israel; son of Jesse; husband of Abigail, Ahinoam, Bathsheba, Michal, etc.; father of Absalom, Adonijah, Amnon, Solomon, Tamar, etc.
SOLOMON: King of Israel and Judah; son of David; father of Rehoboam.
REHOBOAM: Son of Solomon; during his reign the kingdom was divided into Judah and Israel.

Kings of Judah (Southern Kingdom)

REHOBOAM: First King.
ABIJAH (or ABIJAM or ABIA): Son of Rehoboam.
ASA: Probably son of Abijah.
JEHOSHAPHAT: Son of Asa.
JEHORAM (or JORAM): Son of Jehoshaphat; husband of Athaliah.
AHAZIAH: Son of Jehoram and Athaliah.
ATHALIAH: Daughter of King Ahab of Israel and Jezebel; wife of Jehoram.
JOASH (or JEHOASH): Son of Ahaziah.
AMAZIAH: Son of Joash.
UZZIAH (or AZARIAH): Son of Amaziah.
JOTHAM: Regent, later King; son of Uzziah.
AHAZ: Son of Jotham.
HEZEKIAH: Son of Ahaz; husband of Hephzi-Bah.
MANASSEH: Son of Hezekiah and Hephzi-Bah.
AMON: Son of Manasseh.
JOSIAH (or JOSIAS): Son of Amon.
JEHOAHAZ (or JOAHAZ): Son of Josiah.
JEHOIAKIM: Son of Josiah.
JEHOIACHIN: Son of Jehoiakim.
ZEDEKIAH: Son of Josiah; kingdom overthrown by Babylonians under Nebuchadnezzar.

Kings of Israel (Northern Kingdom)

JEROBOAM I: Led secession of Israel.
NADAB: Son of Jeroboam I.
BAASHA: Overthrew Nadab.
ELAH: Son of Baasha.
ZIMRI: Overthrew Elah.
OMRI: Overthrew Zimri.
AHAB: Son of Omri; husband of Jezebel.
AHAZIAH: Son of Ahab.
JEHORAM (or JORAM): Son of Ahab.
JEHU: Overthrew Jehoram.
JEHOAHAZ (or JOAHAZ): Son of Jehu.
JEHOASH (or JOASH): Son of Jehoahaz.

JEROBOAM II: Son of Jehoash.
ZECHARIAH: Son of Jeroboam II.
SHALLUM: Overthrew Zechariah.
MENAHEM: Overthrew Shallum.
PEKAHIAH: Son of Menahem.
PEKAH: Overthrew Pekahiah.
HOSHEA: Overthrew Pekah; kingdom overthrown by Assyrians under Sargon II.

Prophets

Major

ISAIAH	JEREMIAH	EZEKIEL	DANIEL

Minor

HOSEA	OBADIAH	NAHUM	HAGGAI
JOEL	JONAH	HABAKKUK	ZECHARIAH
AMOS	MICAH	ZEPHANIAH	MALACHI

Foreign Phrases

(NOTE: The English meanings given are not necessarily literal translations.)

AB OVO: From the beginning.
ABSIT OMEN: Hope this is no bad luck.
AEQUO ANIMO: Undisturbed in mind.
AD VALOREM: According to its value.
ALEA JACTA EST: The die is cast.
ALMA MATER: One's college or school.
ALTER EGO: Other self.
AMICUS CURIAE: Friend of the court.
ANNO DOMINI: Year of our Lord.
BEL CANTO: A style of singing marked by virtuosity and beauty.
BETE NOIRE: Particular nemesis.
BONA FIDE: In good faith; genuine.
CARPE DIEM: Enjoy today.
CASUS BELLI: Cause of war.
CAVEAT EMPTOR: Buy at your own risk.
CORPUS DELICTI: Fundamental fact or facts necessary to commission of a crime.
CUI BONO: To whose advantage?
CUM GRANO SALIS: With a grain of salt.
DE FACTO: As a matter of fact; because of this fact.
DEO GRATIAS: Thanks be to God.
DEUS EX MACHINA: Artificially produced to bring a solution of some extreme difficulty.
ECCE HOMO: This is the man.
ERRARE HUMANUM (EST): To err is human.
FESTINA LENTE: Make haste slowly.
FIAT LUX: Let there be light.
FIDUS ACHATES: Faithful friend.
FLAGRANTE DELICTO: Caught in the act.
HABEAS CORPUS: Common-law writ to bring a person before a court or judge.
HIC JACET: Here lies. . . .
HOI POLLOI: The common people.
HONORIS CAUSA: For the sake of honor.
HORS D'OEUVRES: Side dishes.
IN VINO VERITAS: In wine there is truth.
IPSE DIXIT: An assertion made but not proved.
IPSO FACTO: By the very fact.
JEUNESSE DOREE: Gilded youth.
LABOR OMNIA VINCIT: Work overcomes all things.
LAISSEZ FAIRE: Noninterference.
MIRABILE DICTU: Wonderful to relate.
MULTUM IN PARVO: Much in little.
NIL ADMIRARI: To be astonished at nothing.
NOLENS, VOLENS: Willy-nilly.
O TEMPORA! O MORES!: What sad times and customs!
PERSONA GRATA: A favored person.
POST MORTEM: After death.
PRO BONO PUBLICO: For the public welfare.
PRO TEMPORE: For the time being.
RARA AVIS: Extraordinary person or thing.
REQUIESCAT IN PACE: Rest in peace.
SAVOIR FAIRE: Know-how; manners for all occasions.
SINE DIE: With no day set for the next meeting.
SINE QUA NON: Indispensable.
SPIRITUS FRUMENTI: Alcohol.
STATUS (IN) QUO: State in which anything is.
SUI GENERIS: In a class by itself.
SURSUM CORDA: Lift up your hearts.
TEMPUS FUGIT: Time flies.
ULTIMA THULE: The limit in an ideal way.
VAE VICTIS: Woe to the conquered.
VENI, VIDI, VICI: I came, I saw, I conquered.

Greek and Roman Mythology

(Most of the Greek deities were adopted by the Romans, although in many cases there was a change of name. In the list below, information is given under the Greek name; the name in parentheses is the Latin equivalent. However, all Latin names are listed with cross references to the Greek ones. In addition, there are several deities which were exclusively Roman.)

ACHERON: *See* Rivers.

ACHILLES: Greek warrior; slew Hector at Troy; slain by Paris, who wounded him in his vulnerable heel.

ACTAEON: Hunter; surprised Artemis bathing; changed by her to stag and killed by his dogs.

ADMETUS: King of Thessaly; his wife, Alcestis, offered to die in his place.

ADONIS: Beautiful youth loved by Aphrodite.

AEACUS: One of three judges of dead in Hades; son of Zeus.

AEËTES: King of Colchis; father of Medea; keeper of Golden Fleece.

AEGEUS: Father of Theseus; believing Theseus killed in Crete, he drowned himself, Aegean Sea named for him.

AEGISTHUS: Son of Thyestes; slew Atreus; with Clytemnestra, his paramour, slew Agamemnon; slain by Orestes.

AEGYPTUS: Brother of Danaüs; his sons, except Lynceus, slain by Danaïdes.

AENEAS: Trojan; son of Anchises and Aphrodite; after fall of Troy, led his followers eventually to Italy; loved and deserted Dido.

AEOLUS: *See* Winds.

AESCULAPIUS: *See* Asclepius.

AESON: King of Ioclus; father of Jason; overthrown by his brother Pelias; restored to youth by Medea.

AETHER: Personification of sky.

AETHRA: Mother of Theseus.

AGAMEMNON: King of Mycenae; son of Atreus; brother of Menelaus; leader of Greeks against Troy; slain on his return home by Clytemnestra and Aegisthus.

AGLAIA: *See* Graces.

AJAX: Greek warrior; killed himself at Troy because Achilles' armor was awarded to Odysseus.

ALCESTIS: Wife of Admetus; offered to die in his place but saved from death by Hercules.

ALCMENE: Wife of Amphitryon; mother by Zeus of Hercules.

ALCYONE: *See* Pleiades.

ALECTO: *See* Furies.

ALECTRYON: Youth changed by Ares into cock.

ALTHAEA: Wife of Oeneus; mother of Meleager.

AMAZONS: Female warriors in Asia Minor; supported Troy against Greeks.

AMOR: *See* Eros.

AMPHION: Musician; husband of Niobe; charmed stones to build fortifications for Thebes.

AMPHITRITE: Sea goddess; wife of Poseidon.

AMPHITRYON: Husband of Alcmene.

ANCHISES: Father of Aeneas.

ANCILE: Sacred shield that fell from heavens; palladium of Rome.

ANDRAEMON: Husband of Dryope.

ANDROMACHE: Wife of Hector.

ANDROMEDA: Daughter of Cepheus; chained to cliff for monster to devour; rescued by Perseus.

ANTEIA: Wife of Proetus; tried to induce Bellerophon to elope with her.

ANTEROS: God who avenged unrequited love.

ANTIGONE: Daughter of Oedipus; accompanied him to Colonus; performed burial rite for Polynices and was buried alive.

ANTINOÜS: Leader of suitors of Penelope; slain by Odysseus.

APHRODITE (VENUS): Goddess of love and beauty; daughter of Zeus; mother of Eros.

APOLLO: God of beauty, poetry, music; later identified with Helios as Phoebus Apollo; son of Zeus and Leto.

AQUILO: *See* Winds.

ARACHNE: Maiden who challenged Athena to weaving contest; changed to spider.

ARES (MARS): God of war; son of Zeus and Hera.

ARGO: Ship in which Jason and followers sailed to Colchis for Golden Fleece.

ARGUS: Monster with hundred eyes; slain by Hermes; his eyes placed by Hera into peacock's tail.

ARIADNE: Daughter of Minos; aided Theseus in slaying Minotaur; deserted by him on island of Naxos and married to Dionysus.

ARION: Musician; thrown overboard by pirates but saved by dolphin.

ARTEMIS (DIANA): Goddess of moon; huntress; twin sister of Apollo.

ASCLEPIUS (AESCULAPIUS): Mortal son of Apollo; slain by Zeus for raising dead; later deified as god of medicine. Also known as Asklepios.

ASTARTE: Phoenician goddess of love; variously identified with Aphrodite, Selene, and Artemis.

ASTRAEA: Goddess of Justice; daughter of Zeus and Themis.

ATALANTA: Princess who challenged her suitors to a foot race; Hippomenes won race and married her.

ATHENA (MINERVA): Goddess of wisdom; known poetically as Pallas Athene; sprang fully armed from head of Zeus.

ATLAS: Titan; held world on his shoulders as punishment for warring against Zeus; son of Iapetus.

ATREUS: King of Mycenae; father of Menelaus and Agamemnon; brother of Thyestes, three of whose sons he slew and served to him at banquet; slain by Aegisthus.

ATROPOS: *See* Fates.

AURORA: *See* Eos.

AUSTER: *See* Winds.

AVERNUS: Infernal regions; name derived from small vaporous lake near Vesuvius which was fabled to kill birds and vegetation.

BACCHUS: *See* Dionysus.

BELLEROPHON: Corinthian hero; killed Chimera with aid of Pegasus; tried to reach Olympus on Pegasus and was thrown to his death.

BELLONA: Roman goddess of war.

BOREAS: *See* Winds.

BRIAREUS: Monster of hundred hands; son of Uranus and Gaea.

BRISEIS: Captive maiden given to Achilles; taken by Agamemnon in exchange for loss of Chryseis, which caused Achilles to cease fighting, until death of Patroclus.

CADMUS: Brother of Europa; planter of dragon seeds from which first Thebans sprang.

CALLIOPE: *See* Muses.

CALYPSO: Sea nymph; kept Odysseus on her island Ogygia for seven years.

CASSANDRA: Daughter of Priam; prophetess who was never believed; slain with Agamemnon.

CASTOR: *See* Dioscuri.

CELAENO: *See* Pleiades.

CENTAURS: Beings half man and half horse; lived in mountains of Thessaly.

CEPHALUS: Hunter; accidentally killed his wife Procris with his spear.

CEPHEUS: King of Ethiopia; father of Andromeda.

CERBERUS: Three-headed dog guarding entrance to Hades.

CERES: *See* Demeter.

CHAOS: Formless void; personified as first of gods.

CHARON: Boatman on Styx who carried souls of dead to Hades; son of Erebus.

CHARYBDIS: Female monster; personification of whirlpool.

CHIMERA: Female monster with head of lion, body of goat, tail of serpent; killed by Bellerophon.

CHIRON: Most famous of centaurs.

CHRONOS: Personification of time.

CHRYSEIS: Captive maiden given to Agamemnon; his refusal to accept ransom from her father Chryses caused Apollo to send plague on Greeks besieging Troy.

CIRCE: Sorceress; daughter of Helios; changed Odysseus' men into swine.

CLIO: *See* Muses.

CLOTHO: *See* Fates.

CLYTEMNESTRA: Wife of Agamemnon, whom she slew with aid of her paramour, Aegisthus; slain by her son Orestes.

COCYTUS: *See* Rivers.

CREON: Father of Jocasta; forbade burial of Polynices; ordered burial alive of Antigone.

CREÜSA: Princess of Corinth, for whom Jason deserted Medea; slain by Medea, who sent her poisoned robe; also known as Glauke.

CREÜSA: Wife of Aeneas; died fleeing Troy.

CRONUS (SATURN): Titan; god of harvests; son of Uranus and Gaea; dethroned by his son Zeus.

CUPID: *See* Eros.

CYBELE: Anatolian nature goddess; adopted by Greeks and identified with Rhea.

CYCLOPES: Race of one-eyed giants (singular: Cyclops).

DAEDALUS: Athenian artificer; father of Icarus; builder of Labyrinth in Crete; devised wings attached with wax for him and Icarus to escape Crete.

DANAË: Princess of Argos; mother of Perseus by Zeus, who appeared to her in form of golden shower.

DANAÏDES: Daughters of Danaüs; at his command, all except Hypermnestra slew their husbands, the sons of Aegyptus.

DANAÜS: Brother of Aegyptus; father of Danaïdes; slain by Lynceus.

DAPHNE: Nymph; pursued by Apollo; changed to laurel tree.

DECUMA: *See* Fates.

DEINO: *See* Graeae.

DEMETER (CERES): Goddess of agriculture; mother of Persephone.

DIANA: *See* Artemis.

DIDO: Founder and queen of Carthage; stabbed herself when deserted by Aeneas.

DIOMEDES: Greek hero; with Odysseus, entered Troy and carried off Palladium, sacred statue of Athena.

DIOMEDES: Owner of man-eating horses, which Hercules, as ninth labor, carried off.

DIONE: Titan goddess; mother by Zeus of Aphrodite.

DIONYSUS (BACCHUS): God of wine; son of Zeus and Semele.

DIOSCURI: Twins Castor and Pollux; sons of Leda by Zeus.

DIS: *See* Hades.

DRYADS: Wood nymphs.

DRYOPE: Maiden changed to Hamadryad.

ECHO: Nymph who fell hopelessly in love with Narcissus; faded away except for her voice.

ELECTRA: Daughter of Agamemnon and Clytemnestra; sister of Orestes; urged Orestes to slay Clytemnestra and Aegisthus.

ELECTRA: *See* Pleiades.

ELYSIUM: Abode of blessed dead.

ENDYMION: Mortal loved by Selene.

ENYO: *See* Graeae.

EOS (AURORA): Goddess of dawn.

EPIMETHEUS: Brother of Prometheus; husband of Pandora.

ERATO: *See* Muses.

EREBUS: Spirit of darkness; son of Chaos.

ERINYES: *See* Furies.

ERIS: Goddess of discord.

EROS (AMOR or CUPID): God of love; son of Aphrodite.

ETEOCLES: Son of Oedipus, whom he succeeded to rule alternately with Polynices; refused to give up throne at end of year; he and Polynices slew each other.

EUMENIDES: *See* Furies.

EUPHROSYNE: *See* Graces.

EUROPA: Mortal loved by Zeus, who, in form of white bull, carried her off to Crete.

EURUS: *See* Winds.

EURYALE: *See* Gorgons.

EURYDICE: Nymph; wife of Orpheus.

EURYSTHEUS: King of Argos; imposed twelve labors on Hercules.

EUTERPE: *See* Muses.

FATES: Goddesses of destiny: Clotho (Spinner of thread of life), Lachesis (Determiner of length), and Atropos (Cutter of thread); also called Moirae. Identified by Romans with their goddesses of fate; Nona, Decuma, and Morta; called Parcae.

FAUNS: Roman deities of woods and groves.

FAUNUS: *See* Pan.

FAVONIUS: *See* Winds.

FLORA: Roman goddess of flowers.

FORTUNA: Roman goddess of fortune.

FURIES: Avenging spirits: Alecto, Megaera, and Tisiphone; known also as Erinyes or Eumenides.

GAEA: Goddess of earth; daughter of Chaos; mother of Titans; known also as Ge, Gea, Gaia, etc.

GALATEA: Statue of maiden carved from ivory by Pygmalion; given life by Aphrodite.

GALATEA: Sea nymph; loved by Polyphemus.

GANYMEDE: Beautiful boy; successor to Hebe as cupbearer of gods.

GLAUCUS: Mortal who became sea divinity by eating magic grass.

GLAUKE: *See* Creüsa.

GOLDEN FLEECE: Fleece from ram that flew Phrixos to Colchis; Aeëtes placed it under guard of dragon; carried off by Jason.

GORGONS: Female monsters: Euryale, Medusa, and Stheno; had snakes for hair; their glances turned mortals to stone. *See* Medusa.

GRACES: Beautiful goddesses: Aglaia (Brilliance), Euphrosyne (Joy), and Thalia (Bloom); daughters of Zeus.

GRAEAE: Sentinels for Gorgons: Deino, Enyo, and Pephredo; had one eye among them, which passed from one to another.

HADES (DIS): Name sometimes given Pluto; also, abode of dead, ruled by Pluto.

HAEMON: Son of Creon; promised husband of Antigone; killed himself in her tomb.

HAMADRYADS: Tree nymphs; lived and died with trees they inhabited.

HARPIES: Monsters with heads of women and bodies of birds.

HEBE (JUVENTAS): Goddess of youth; cupbearer of gods before Ganymede; daughter of Zeus and Hera.

HECATE: Goddess of sorcery and witchcraft.

HECTOR: Son of Priam; slayer of Patroclus; slain by Achilles.

HECUBA: Wife of Priam.

HELEN: Fairest woman in world; daughter of Zeus and Leda; wife of Menelaus; carried to Troy by Paris, causing Trojan War.

HELIADES: Daughters of Helios; mourned for Phaëthon and were changed to poplar trees.

HELIOS (SOL): God of sun; later identified with Phoebus Apollo.

HELLE: Sister of Phrixos; fell from ram of Golden Fleece; water where she fell named Hellespont.

HEPHAESTUS (VULCAN): God of fire; celestial blacksmith; son of Zeus and Hera; husband of Aphrodite.

HERA (JUNO): Queen of heaven; wife of Zeus.

HERCULES: Hero and strong man; son of Zeus and Alcmene; performed twelve

labors or deeds to be free from bondage under Eurystheus; after death, his mortal share was destroyed, and he became immortal. Also known as Herakles or Heracles. Labors: (1) killing Nemean lion; (2) killing Lernaean Hydra; (3) capturing Erymanthian boar; (4) capturing Cerynean hind; (5) killing man-eating Stymphalian birds; (6) procuring girdle of Hippolyte; (7) cleaning Augean stables; (8) capturing Cretan bull; (9) capturing man-eating horses of Diomedes; (10) capturing cattle of Geryon; (11) procuring golden apples of Hesperides; (12) bringing Cerberus up from Hades.

HERMES (MERCURY): God of physicians and thieves; messenger of gods; son of Zeus and Maia.

HERO: Priestess of Aphrodite; Leander swam Hellespont nightly to see her; drowned herself at his death.

HESPERUS: Evening star.

HESTIA (VESTA): Goddess of hearth; sister of Zeus.

HIPPOLYTE: Queen of Amazons; wife of Theseus.

HIPPOLYTUS: Son of Theseus and Hippolyte; falsely accused by Phaedra of trying to kidnap her; slain by Poseidon at request of Theseus.

HIPPOMENES: Husband of Atalanta, whom he beat in foot race by dropping golden apples, which she stopped to pick up.

HYACINTHUS: Beautiful youth accidentally killed by Apollo, who caused flower to spring up from his blood.

HYDRA: Nine-headed monster in marsh of Lerna; slain by Hercules.

HYGEIA: Personification of health.

HYMEN: God of marriage.

HYPERION: Titan; early sun god; father of Helios.

HYPERMNESTRA: Daughter of Danaüs; refused to kill her husband Lynceus.

HYPNOS (SOMNUS): God of sleep.

IAPETUS: Titan; father of Atlas, Epimetheus, and Prometheus.

ICARUS: Son of Daedalus; flew too near sun with wax-attached wings and fell into sea and was drowned.

IO: Mortal maiden loved by Zeus; changed by Hera into heifer.

IOBATES: King of Lycia; sent Bellerophon to slay Chimera.

IPHIGENIA: Daughter of Agamemnon; offered as sacrifice to Artemis at Aulis; carried by Artemis to Tauris where she became priestess; escaped from there with Orestes.

IRIS: Goddess of rainbow; messenger of Zeus and Hera.

ISMENE: Daughter of Oedipus; sister of Antigone.

IULUS: Son of Aeneas.

IXION: King of Lapithae; for making love to Hera he was bound to endlessly revolving wheel in Tartarus.

JANUS: Roman god of gates and doors; represented with two opposite faces.

JASON: Son of Aeson; to gain throne of Ioclus from Pelias, went to Colchis and brought back Golden Fleece; married Medea; deserted her for Creüsa.

JOCASTA: Wife of Laius; mother of Oedipus; unwittingly became wife of Oedipus; hanged herself when relationship was discovered.

JUNO: *See* Hera.

JUPITER: *See* Zeus.

JUVENTAS: *See* Hebe.

LACHESIS: *See* Fates.

LAIUS: Father of Oedipus, by whom he was slain.

LAOCOÖN: Priest of Apollo at Troy; warned against bringing wooden horse into Troy; destroyed with his two sons by serpents sent by Athena.

LARES: Roman ancestral spirits protecting descendants and homes.

LAVINIA: wife of Aeneas after defeat of Turnus.

LEANDER: Swam Hellespont nightly to see Hero; drowned in storm.

LEDA: Mortal loved by Zeus in form of Swan; mother of Helen, Clytemnestra, Dioscuri.

LETHE: *See* Rivers.

LETO (LATONA): Mother by Zeus of Artemis and Apollo.

LUCINA: Roman goddess of childbirth; identified with Juno.

LYNCEUS: Son of Aegyptus; husband of Hypermnestra; slew Danaüs.

MAIA: Daughter of Atlas; mother of Hermes.

MAIA: *See* Pleiades.

MANES: Souls of dead Romans, particularly of ancestors.

MARS: *See* Ares.

MARSYAS: Shepherd; challenged Apollo to music contest and lost; flayed alive by Apollo.

MEDEA: Sorceress; daughter of Aeëtes; helped Jason obtain Golden Fleece; when deserted by him for Creüsa, killed her children and Creüsa.

MEDUSA: Gorgon; slain by Perseus, who cut off her head.

MEGAERA: *See* Furies.

MELEAGER: Son of Althaea; his life would last as long as brand burning at his birth; Althaea quenched and saved it but destroyed it when Meleager slew his uncles.

MELPOMENE: *See* Muses.

MEMNON: Ethiopian king; made immortal by Zeus; son of Tithonus and Eos.

MENELAUS: King of Sparta; son of Atreus; brother of Agamemnon; husband of Helen.

MERCURY: *See* Hermes.

MEROPE: *See* Pleiades.

MEZENTIUS: Cruel Etruscan king; ally of Turnus against Aeneas; slain by Aeneas.

MIDAS: King of Phrygia; given gift of turning to gold all he touched.

MINERVA: *See* Athena.

MINOS: King of Crete; after death, one of three judges of dead in Hades; son of Zeus and Europa.

MINOTAUR: Monster, half man and half beast, kept in Labyrinth in Crete; slain by Theseus.

MNEMOSYNE: Goddess of memory; mother by Zeus of Muses.

MOIRAE: *See* Fates.

MOMUS: God of ridicule.

MORPHEUS: God of dreams.

MORS: *See* Thanatos.

MORTA: *See* Fates.

MUSES: Goddesses presiding over arts and sciences: Calliope (epic poetry), Clio (history), Erato (lyric and love poetry), Euterpe (music), Melpomene (tragedy), Polymnia or Polyhymnia (sacred poetry), Terpsichore (choral dance and song), Thalia (comedy and bucolic poetry), Urania (astronomy); daughters of Zeus and Mnemosyne.

NAIADS: Nymphs of waters, streams, and fountains.

NAPAEAE: Wood nymphs.

NARCISSUS: Beautiful youth loved by Echo; in punishment for not returning her love, he was made to fall in love with his image reflected in pool; pined away and became flower.

NEMESIS: Goddess of retribution.

NEOPTOLEMUS: Son of Achilles; slew Priam; also known as Pyrrhus.

NEPTUNE: *See* Poseidon.

NEREIDS: Sea nymphs; attendants on Poseidon.

NESTOR: King of Pylos; noted for wise counsel in expedition against Troy.

NIKE: Goddess of victory.

NIOBE: Daughter of Tantalus; wife of Amphion; her children slain by Apollo and Artemis; changed to stone but continued to weep her loss.

NONA: *See* Fates.

NOTUS: *See* Winds.

NOX: *See* Nyx.

NYMPHS: Beautiful maidens; inferior deities of nature.

NYX (NOX): Goddess of night.

OCEANIDS: Ocean nymphs; daughters of Oceanus.

OCEANUS: Eldest of Titans; god of waters.

ODYSSEUS (ULYSSES): King of Ithaca; husband of Penelope; wandered ten years after fall of Troy before arriving home.

OEDIPUS: King of Thebes; son of Laius and Jocasta; unwittingly murdered Laius and married Jocasta; tore his eyes out when relationship was discovered.

OENONE: Nymph of Mount Ida; wife of Paris, who abandoned her; refused to cure him when he was poisoned by arrow of Philoctetes at Troy.

OPS: *See* Rhea.

OREADS: Mountain nymphs.

ORESTES: Son of Agamemnon and Clytemnestra; brother of Electra; slew Clytemnestra and Aegisthus; pursued by Furies until his purification by Apollo.

ORION: Hunter; slain by Artemis and made heavenly constellation.

ORPHEUS: Famed musician; son of Apollo and Muse Calliope; husband of Eurydice.

PALES: Roman goddess of shepherds and herdsmen.

PALINURUS: Aeneas' pilot; fell overboard in his sleep and was drowned.

PAN (FAUNUS): God of woods and fields; part goat; son of Hermes.

PANDORA: Opener of box containing human ills; mortal wife of Epimetheus.

PARCAE: *See* Fates.

PARIS: Son of Priam; gave apple of discord to Aphrodite, for which she enabled him to carry off Helen; slew Achilles at Troy; slain by Philoctetes.

PATROCLUS: Great friend of Achilles; wore Achilles' armor and was slain by Hector.

PEGASUS: Winged horse that sprang from Medusa's body at her death; ridden by Bellerophon when he slew Chimera.

PELIAS: King of Ioclus; seized throne from his brother Aeson; sent Jason for Golden Fleece; slain unwittingly by his daughters at instigation of Medea.

PELOPS: Son of Tantalus; his father cooked and served him to gods; restored to life; Peloponnesus named for him.

PENATES: Roman household gods.

PENELOPE: Wife of Odysseus; waited faithfully for him for ten years while putting off numerous suitors.

PEPHREDO: *See* Graeae.

PERIPHETES: Giant; son of Hephaestus; slain by Theseus.

PERSEPHONE (PROSERPINE): Queen of infernal regions; daughter of Zeus and Demeter; wife of Pluto.

PERSEUS: Son of Zeus and Danaë; slew Medusa; rescued Andromeda from monster and married her.

PHAEDRA: Daughter of Minos; wife of Theseus; falsely accused Hippolytus of trying to kidnap her.

PHAËTHON: Son of Helios; drove his father's sun chariot and was struck down by Zeus before he set world on fire.

PHILOCTETES: Greek warrior who possessed Hercules' bow and arrows; slew Paris at Troy with poisoned arrow.

PHINEUS: Betrothed of Andromeda; tried to slay Perseus but turned to stone by Medusa's head.

PHLEGETHON: *See* Rivers.

PHOSPHOR: Morning star.

PHRIXOS: Brother of Helle; carried by ram of Golden Fleece to Colchis.

PIRITHOÜS: Son of Ixion; friend of Theseus; tried to carry off Persephone from Hades; bound to enchanted rock by Pluto.

PLEIADES: Alcyone, Celaeno, Electra, Maia, Merope, Sterope or Asterope, Taygeta; seven daughters of Atlas; transformed into heavenly constellation, of which six stars are visible (Merope is said to have hidden in shame for loving a mortal).

PLUTO (DIS): God of Hades; brother of Zeus.

PLUTUS: God of wealth.

POLLUX: *See* Dioscuri.

POLYMNIA: *See* Muses.

POLYNICES: Son of Oedipus; he and his brother Eteocles killed each other; burial rite, forbidden by Creon, performed by his sister Antigone.

POLYPHEMUS: Cyclops; devoured six of Odysseus' men; blinded by Odysseus.

POLYXENA: Daughter of Priam; betrothed to Achilles, whom Paris slew at their betrothal; sacrificed to shade of Achilles.

POMONA: Roman goddess of fruits.

PONTUS: Sea god; son of Gaea.

POSEIDON (NEPTUNE): God of sea; brother of Zeus.

PRIAM: King of Troy; husband of Hecuba; ransomed Hector's body from Achilles; slain by Neoptolemus.

PRIAPUS: God of regeneration.

PROCRIS: Wife of Cephalus, who accidentally slew her.

PROCRUSTES: Giant; stretched or cut off legs of victims to make them fit iron bed; slain by Theseus.

PROETUS: Husband of Anteia; sent Bellerophon to Iobates to be put to death.

PROTEUS: Sea god; assumed various shapes when called on to prophesy.

PSYCHE: Beloved of Eros; punished by jealous Aphrodite; made immortal and united with Eros.

PYGMALION: King of Cyprus; carved ivory statue of maiden which Aphrodite gave life as Galatea.

PYRAMUS: Babylonian youth; made love to Thisbe through hole in wall; thinking Thisbe slain by lion, killed himself.

PYRRHUS: *See* Neoptolemus.

PYTHON: Serpent born from slime left by Deluge; slain by Apollo.

QUIRINUS: Roman war god.

REMUS: Brother of Romulus; slain by him.

RHADAMANTHUS: One of three judges of dead in Hades; son of Zeus and Europa.

RHEA (OPS): Daughter of Uranus and Gaea; wife of Cronus; mother of Zeus; identified with Cybele.

RIVERS OF UNDERWORLD: Acheron (woe), Cocytus (wailing), Lethe (forgetfulness), Phlegethon (fire), Styx (across which souls of dead were ferried by Charon).

ROMULUS: Founder of Rome; he and Remus suckled in infancy by she-wolf; slew Remus; deified by Romans.

SARPEDON: King of Lycia; son of Zeus and Europa; slain by Patroclus at Troy.

SATURN: *See* Cronus.

SATYRS: Hoofed demigods of woods and fields; companions of Dionysus.

SCIRON: Robber; forced strangers to wash his feet, then hurled them into sea where tortoise devoured them; slain by Theseus.

SCYLLA: Female monster inhabiting rock opposite Charybdis; menaced passing sailors.

SELENE: Goddess of moon.

SEMELE: Daughter of Cadmus; mother by Zeus of Dionysus; demanded Zeus appear before her in all his splendor and was destroyed by his lightnings.

SIBYLS: Various prophetesses; most famous, Cumaean sibyl, accompanied Aeneas into Hades.

SILENI: Minor woodland deities similar to satyrs (singular: silenus). Sometimes Silenus refers to eldest of satyrs, son of Hermes or of Pan.

SILVANUS: Roman god of woods and fields.

SINIS: Giant: bent pines, by which he hurled victims against side of mountain; slain by Theseus.

SIRENS: Minor deities who lured sailors to destruction with their singing.

SISYPHUS: King of Corinth; condemned in Tartarus to roll huge stone to top of hill; it always rolled back down again.

SOL: *See* Helios.

SOMNUS: *See* Hypnos.

SPHINX: Monster of Thebes; killed those who could not answer her riddle*; slain by Oedipus. Name also refers to other monsters having body of lion, wings, and head and bust of woman.

STEROPE: *See* Pleiades.

STHENO: *See* Gorgons.

STYX: *See* Rivers.

*What animal goes on 4 feet in morning, 2 at noon, 3 at night? Answer: Man (crawls when child, walks when adult, uses staff when old).

SYMPLEGADES: Clashing rocks at entrance to Black Sea; Argo passed through, causing them to become forever fixed.

SYRINX: Nymph pursued by Pan; changed to reeds, from which he made his pipes.

TANTALUS: Cruel king; father of Pelops and Niobe; condemned in Tartarus to stand chin-deep in lake surrounded by fruit branches; as he tried to eat or drink, water or fruit always receded.

TARTARUS: Underworld below Hades; often refers to Hades.

TAYGETA: *See* Pleiades.

TELEMACHUS: Son of Odysseus; made unsuccessful journey to find his father.

TELLUS: Roman goddess of earth.

TERMINUS: Roman god of boundaries and landmarks.

TERPSICHORE: *See* Muses.

TERRA: Roman earth goddess.

THALIA: *See* Graces; Muses.

THANATOS (MORS): God of death.

THEMIS: Titan goddess of laws of physical phenomena; daughter of Uranus; mother of Prometheus.

THESEUS: Son of Aegeus; slew Minotaur; married and deserted Ariadne; later married Phaedra.

THISBE: Beloved of Pyramus; killed herself at his death.

THYESTES: Brother of Atreus; Atreus killed three of his sons and served them to him at banquet.

TIRESIAS: Blind soothsayer of Thebes.

TISIPHONE: *See* Furies.

TITANS: Early gods from which Olympian gods were derived; children of Uranus and Gaea.

TITHONUS: Mortal loved by Eos; changed into grasshopper.

TRITON: Demigod of sea; son of Poseidon.

TURNUS: King of Rutuli in Italy; betrothed to Lavinia; slain by Aeneas.

ULYSSES: *See* Odysseus.

URANIA: *See* Muses.

URANUS: Personification of Heaven; husband of Gaea; father of Titans; dethroned by his son Cronus.

VENUS: *See* Aphrodite.

VERTUMNUS: Roman god of fruits and vegetables; husband of Pomona.

VESTA: *See* Hestia.

VULCAN: *See* Hephaestus.

WINDS: Aeolus (keeper of winds), Boreas (Aquilo) (north wind), Eurus (east wind), Notus (Auster) (south wind), Zephyrus (Favonius) (west wind).

ZEPHYRUS: *See* Winds.

ZEUS (JUPITER): Chief of Olympian gods; son of Cronus and Rhea; husband of Hera.

Norse Mythology

AESIR: Chief gods of Asgard.

ANDVARI: Dwarf; robbed of gold and magic ring by Loki.

ANGERBOTHA (Angrbotha): Giantess; mother by Loki of Fenrir, Hel, and Midgard serpent.

ASGARD (Asgarth): Abode of gods.

ASK (Aske, Askr): First man; created by Odin, Hoenir, and Lothur.

ASYNJUR: Goddesses of Asgard.

ATLI: Second husband of Gudrun; invited Gunnar and Hogni to his court, where they were slain; slain by Gudrun.

AUDHUMLA (Audhumbla): Cow that nourished Ymir; created Buri by licking ice cliff.

BALDER (Baldr, Baldur): God of light, spring, peace, joy; son of Odin; slain by Hoth at instigation of Loki.

BIFROST: Rainbow bridge connecting Midgard and Asgard.

BRAGI (Brage): God of poetry; husband of Ithunn.

BRANSTOCK: Great oak in hall of Volsungs; into it, Odin thrust Gram, which only Sigmund could draw forth.

BRYNHILD: Valkyrie; wakened from magic sleep by Sigurd; married Gunnar; instigated death of Sigurd; killed herself and was burned on pyre beside Sigurd.

BUR (Bor): Son of Buri; father of Odin, Hoenir, and Lothur.

BURI (Bori): Progenitor of gods; father of Bur; created by Audhumla.

EMBLA: First woman; created by Odin, Hoenir, and Lothur.

FAFNIR: Son of Rodmar, whom he slew for gold in Otter's skin; in form of dragon, guarded gold; slain by Sigurd.

FENRIR: Wolf; offspring of Loki; swallows Odin at Ragnarok and is slain by Vitharr.

FORSETI: Son of Balder.

FREY (Freyr): God of fertility and crops; son of Njorth; originally one of Vanir.

FREYA (Freyja): Goddess of love and beauty; sister of Frey; originally one of Vanir.

FRIGG (Frigga): Goddess of sky; wife of Odin.

GARM: Watchdog of Hel; slays, and is slain by, Tyr at Ragnarok.

GIMLE: Home of blessed after Ragnarok.

GIUKI: King of Nibelungs; father of Gunnar, Hogni, Guttorm, and Gudrun.

GLATHSHEIM (Gladsheim): Hall of gods in Asgard.

GRAM (meaning "Angry"): Sigmund's sword; rewelded by Regin; used by Sigurd to slay Fafnir.

GREYFELL: Sigmund's horse; descended from Sleipnir.

GRIMHILD: Mother of Gudrun; administered magic potion to Sigurd which made him forget Brynhild.

GUDRUN: Daughter of Giuki; wife of Sigurd; later wife of Atli and Jonakr.

GUNNAR: Son of Giuki; in his semblance Sigurd won Brynhild for him; slain at hall of Atli.

GUTTORM: Son of Giuki; slew Sigurd at Brynhild's request.

HEIMDALL (Heimdallr): Guardian of Asgard.

HEL: Goddess of dead and queen of underworld; daughter of Loki.

HIORDIS: Wife of Sigmund; mother of Sigurd.

HOENIR: One of creators of Ask and Embla; son of Bur.

HOGNI: Son of Giuki; slain at hall of Atli.

HOTH (Hoder, Hodur): Blind god of night and darkness; slayer of Balder at instigation of Loki.

ITHUNN (Ithun, Iduna): Keeper of golden apples of youth; wife of Bragi.

JONAKR: Third husband of Gudrun.

JORMUNREK: Slayer of Swanhild; slain by sons of Gudrun.

JOTUNNHEIM (Jotunheim): Abode of giants.

LIF and LIFTHRASIR: First man and woman after Ragnarok.

LOKI: God of evil and mischief; instigator of Balder's death.

LOTHUR (Lodur): One of creators of Ask and Embla.

MIDGARD (Midgarth): Abode of mankind; the earth.

MIDGARD SERPENT: Sea monster; offspring of Loki; slays, and is slain by, Thor at Ragnarok.

MIMIR: Giant; guardian of well in Jotunnheim at root of Yggdrasill; knower of past and future.

MJOLLNIR: Magic hammer of Thor.

NAGLFAR: Ship to be used by giants in attacking Asgard at Ragnarok; built from nails of dead men.

NANNA: Wife of Balder.

NIBELUNGS: Dwellers in northern kingdom ruled by Giuki.

NIFLHEIM (Nifelheim): Outer region of cold and darkness; abode of Hel.

NJORTH: Father of Frey and Freya; originally one of Vanir.

NORNS: Demigoddesses of fate: Urth (Urdur) (Past), Verthandi (Verdandi) (Present), Skuld (Future).

ODIN (Othin): Head of Aesir; creator of world with Vili and Ve; equivalent to Woden (Wodan, Wotan) in Teutonic mythology.

OTTER: Son of Rodmar; slain by Loki; his skin filled with gold hoard of Andvari to appease Rodmar.

RAGNAROK: Final destruction of present world in battle between gods and giants; some minor gods will survive, and Lif and Lifthrasir will repeople world.

REGIN: Blacksmith; son of Rodmar; foster-father of Sigurd.

RERIR: King of Huns; son of Sigi.

RODMAR: Father of Regin, Otter, and Fafnir; demanded Otter's skin be filled with gold; slain by Fafnir, who stole gold.

SIF: Wife of Thor.

SIGGEIR: King of Goths; husband of Signy; he and his sons slew Volsung and his sons, except Sigmund; slain by Sigmund and Sinfiotli.

SIGI: King of Huns; son of Odin.

SIGMUND: Son of Volsung; brother of Signy, who bore him Sinfiotli; husband of Hiordis, who bore him Sigurd.

SIGNY: Daughter of Volsung; sister of Sigmund; wife of Siggeir; mother by Sigmund of Sinfiotli.

SIGURD: Son of Sigmund and Hiordis; wakened Brynhild from magic sleep; married Gudrun; slain by Guttorm at instigation of Brynhild.

SIGYN: Wife of Loki.

SINFIOTLI: Son of Sigmund and Signy.

SKULD: *See* Norns.

SLEIPNIR (Sleipner): Eight-legged horse of Odin.

SURT (Surtr): Fire demon; slays Frey at Ragnarok.

SVARTALFAHEIM: Abode of dwarfs.

SWANHILD: Daughter of Sigurd and Gudrun; slain by Jormunrek.

THOR: God of thunder; oldest son of Odin; equivalent to Germanic deity Donar.

TYR: God of war; son of Odin; equivalent to Tiu in Teutonic mythology.

ULL (Ullr): Son of Sif; stepson of Thor.

URTH: *See* Norns.

VALHALLA (Valhall): Great hall in Asgard where Odin received souls of heroes killed in battle.

VALI: Odin's son; Ragnarok survivor.

VALKYRIES: Virgins, messengers of Odin, who selected heroes to die in battle and took them to Valhalla; generally considered as nine in number.

VANIR: Early race of gods; three survivors, Njorth, Frey, and Freya, are associated with Aesir.

VE: Brother of Odin; one of creators of world.

VERTHANDI: *See* Norns.

VILI: Brother of Odin; one of creators of world.

VINGOLF: Abode of goddesses in Asgard.

VITHARR (Vithar): Son of Odin; survivor of Ragnarok.

VOLSUNG: King of Huns; son of Rerir; father of Signy, Sigmund, etc.; his descendants were called Volsungs.

YGGDRASILL: Giant ash tree springing from body of Ymir and supporting universe; its roots extended to Asgard, Jotunnheim, and Niflheim.

YMIR (Ymer): Primeval frost giant killed by Odin, Vili, and Ve; world created from his body; also, from his body sprang Yggdrasill.

Egyptian Mythology

AARU: Abode of the blessed dead.

AMEN (Amon, Ammon): One of chief Theban deities; united with sun god under form of Amen-Ra.

AMENTI: Region of dead where souls were judged by Osiris.

ANUBIS: Guide of souls to Amenti; son of Osiris; jackal-headed.

APIS: Sacred bull, an embodiment of Ptah; identified with Osiris as Osiris-Apis or Serapis.

GEB (Keb, Seb): Earth god; father of Osiris; represented with goose on head.

HATHOR (Athor): Goddess of love and mirth; cow-headed.

HORUS: God of day; son of Osiris and Isis; hawk-headed.

ISIS: Goddess of motherhood and fertility; sister and wife of Osiris.

KHEPERA: God of morning sun.

KHNEMU (Khnum, Chnuphis, Chnemu, Chnum): Ram-headed god.

KHONSU (Khensu, Khuns): Son of Amen and Mut.

MENTU (Ment): Solar deity, sometimes considered god of war; falcon-headed.

MIN (Khem, Chem): Principle of physical life.

MUT (Maut): Wife of Amen.

NEPHTHYS: Goddess of the dead; sister and wife of Set.

NU: Chaos from which world was created, personified as a god.

NUT: Goddess of heavens; consort of Geb.

OSIRIS: God of underworld and judge of dead; son of Geb and Nut.

PTAH (Phtha): Chief deity of Memphis.

RA: God of the Sun, the supreme god; son of Nut; Pharaohs claimed descent from him; represented as lion, cat, or falcon.

SERAPIS: God uniting attributes of Osiris and Apis.

SET (Seth): God of darkness or evil; brother and enemy of Osiris.

SHU: Solar deity; son of Ra and Hathor.

TEM (Atmu, Atum, Tum): Solar deity.

THOTH (Dhouti): God of wisdom and magic; scribe of gods; ibis-headed.

Rulers of England and Great Britain

Name	Born	Ruled[2]
Saxons[1]		
Egbert[3]	c. 775	828–839
Ethelwulf	?	839–858
Ethelbald	?	858–860
Ethelbert	?	860–866
Ethelred I	?	866–871
Alfred the Great	849	871–899
Edward the Elder	c. 870	899–925
Athelstan	895	925–939
Edmund I the Deed-doer	921	939–946
Edred	c. 925	946–955
Edwy the Fair	c. 943	955–959
Edgar the Peaceful	943	959–975
Edward the Martyr	c. 962	975–979
Ethelred II the Unready	868	979–1016
Edmund II Ironside	c. 993	1016–1016
Danes		
Canute	995	1016–1035
Harold I Harefoot	c.1016	1035–1040
Hardecanute	c.1018	1040–1042
Saxons		
Edward the Confessor	c.1004	1042–1066
Harold II	c.1020	1066–1066
House of Normandy		
William I the Conqueror	1027	1066–1087
William II Rufus	c.1056	1087–1100
Henry I Beauclerc	1068	1100–1135
Stephen of Blois	c.1100	1135–1154
House of Plantagenet		
Henry II	1133	1154–1189
Richard I Coeur de Lion	1157	1189–1199
John Lackland	1167	1199–1216
Henry III	1207	1216–1272
Edward I Longshanks	1239	1272–1307
Edward II	1284	1307–1327
Edward III	1312	1327–1377
Richard II	1367	1377–1399[4]
House of Lancaster		
Henry IV Bolingbroke	1366	1399–1413
Henry V	1387	1413–1422
Henry VI	1421	1422–1461[13]
House of York		
Edward IV	1442	1461–1483[13]
Edward V	1470	1483–1483
Richard III	1452	1483–1485

House of Tudor		
Name	Born	Ruled[1]
Henry VII	1457	1485–1509
Henry VIII	1491	1509–1547
Edward VI	1537	1547–1553
Jane (Lady Jane Grey)[5]	1537	1553–1553
Mary I ("Bloody Mary")	1516	1553–1558
Elizabeth I	1533	1558–1603
House of Stuart		
James I[6]	1566	1603–1625
Charles I	1600	1625–1649
Commonwealth		
Council of State		1649–1653
Oliver Cromwell[7]	1599	1653–1658
Richard Cromwell[7]	1626	1658–1659[8]
Restoration of House of Stuart		
Charles II	1630	1660–1685
James II	1633	1685–1688[9]

[1] Dates for Saxon Kings are still subjects of controversy. [2] Year of end of rule is also that of death, unless otherwise indicated. [3] Became King of West Saxons in 802; considered (from 828) first King of all England. [4] Died 1400. [5] Nominal Queen for 9 days; not counted as Queen by some authorities. She was beheaded in 1554.

Restoration of House of Stuart (cont'd)		
Name	Born	Ruled[2]
William III[10]	1650	1689–1702
Mary II[10]	1662	1689–1694
Anne	1665	1702–1714
House of Hanover		
George I	1660	1714–1727
George II	1683	1727–1760
George III	1738	1760–1820
George IV	1762	1820–1830
William IV	1765	1830–1837
Victoria	1819	1837–1901
House of Saxe-Coburg[11]		
Edward VII	1841	1901–1910
House of Windsor[11]		
George V	1865	1910–1936
Edward VIII	1894	1936–1936[12]
George VI	1895	1936–1952
Elizabeth II	1926	1952–

[6] Ruled in Scotland as James VI (1567–1625). [7] Lord Protector. [8] Died 1712. [9] Died 1701. [10] Joint rulers 1689–1694. [11] Names changed from Saxe-Coburg to Windsor in 1917. [12] Has been known since his abdication as the Duke of Windsor. [13] Henry VI reigned again briefly 1470–71.

British Prime Ministers Since 1770

Name	Term
Lord North (Tory)	1770–1782
Marquis of Rockingham (Whig)	1782–1782
Earl of Shelburne (Whig)	1782–1783
Duke of Portland (Coalition)	1783–1783
William Pitt, the Younger (Tory)	1783–1801
Henry Addington (Tory)	1801–1804
William Pitt, the Younger (Tory)	1804–1806
Baron Grenville (Whig)	1806–1807
Duke of Portland (Tory)	1807–1809
Spencer Perceval (Tory)	1809–1812
Earl of Liverpool (Tory)	1812–1827
George Canning (Tory)	1827–1827
Viscount Goderich (Tory)	1827–1828
Duke of Wellington (Tory)	1828–1830
Earl Grey (Whig)	1830–1834
Viscount Melbourne (Whig)	1834–1834
Sir Robert Peel (Tory)	1834–1835
Viscount Melbourne (Whig)	1835–1841
Sir Robert Peel (Tory)	1841–1846
Earl Russell (Whig)	1846–1852
Earl of Derby (Tory)	1852–1852
Earl of Aberdeen (Coalition)	1852–1855
Viscount Palmerston (Liberal)	1855–1858
Earl of Derby (Conservative)	1858–1859
Viscount Palmerston (Liberal)	1859–1865
Earl Russell (Liberal)	1865–1866
Earl of Derby (Conservative)	1866–1868
Benjamin Disraeli (Conservative)	1868–1868
William E. Gladstone (Liberal)	1868–1874
Benjamin Disraeli (Conservative)	1874–1880
William E. Gladstone (Liberal)	1880–1885
Marquis of Salisbury (Conservative)	1885–1886
William E. Gladstone (Liberal)	1886–1886
Marquis of Salisbury (Conservative)	1886–1892
William E. Gladstone (Liberal)	1892–1894
Earl of Rosebery (Liberal)	1894–1895
Marquis of Salisbury (Conservative)	1895–1902
Earl Balfour (Conservative)	1902–1905
Sir H. Campbell-Bannerman (Liberal)	1905–1908
Herbert H. Asquith (Liberal)	1908–1915
Herbert H. Asquith (Coalition)	1915–1916
David Lloyd George (Coalition)	1916–1922
Andrew Bonar Law (Conservative)	1922–1923
Stanley Baldwin (Conservative)	1923–1924
James Ramsay MacDonald (Labour)	1924–1924
Stanley Baldwin (Conservative)	1924–1929
James Ramsay MacDonald (Labour)	1929–1931
James Ramsay MacDonald (Coalition)	1931–1935
Stanley Baldwin (Coalition)	1935–1937
Neville Chamberlain (Coalition)	1937–1940
Winston Churchill (Coalition)	1940–1945
Clement R. Attlee (Labour)	1945–1951
Sir Winston Churchill (Conservative)	1951–1955
Sir Anthony Eden (Conservative)	1955

Birthstones

Source: Jewelry Industry Council.

January — Garnet	July — Ruby
February — Amethyst	August — Peridot or Sardonyx
March — Aquamarine or Bloodstone	September — Sapphire
April — Diamond	October — Opal or Tourmaline
May — Emerald	November — Topaz
June — Pearl, Alexandrite or Moonstone	December — Turquoise or Zircon

Rulers of France

Carolingian Dynasty

Name	Born	Ruled[1]
Pepin the Short	c. 714	751–768
Charlemagne[2]	742	768–814
Louis I the Debonair[3]	778	814–840
Charles I the Bald[4]	823	840–877
Louis II the Stammerer	846	877–879
Louis III[5]	c. 863	879–882
Carloman[5]	?	879–884
Charles II the Fat[6]	839	884–887[7]
Eudes (Odo), Count of Paris	?	888–898
Charles III the Simple[8]	879	893–923[9]
Robert I[10]	c. 865	922–923
Rudolf (Raoul), Duke of Burgundy	?	926–936
Louis IV d'Outremer	c. 921	936–954
Lothair	941	954–986
Louis V the Sluggard	c. 966	986–987

Capetian Dynasty

Hugh Capet	c. 940	987–996
Robert II the Pious[11]	c. 970	996–1031
Henry I	1008	1031–1060
Philip I	1052	1060–1108
Louis VI the Fat	1081	1108–1137
Louis VII the Young	c.1121	1137–1180
Philip II (Philip Augustus)	1165	1180–1223
Louis VIII the Lion	1187	1223–1226
Louis IX (St. Louis)	1214	1226–1270
Philip III the Bold	1245	1270–1285
Philip IV the Fair	1268	1285–1314
Louis X the Quarreler	1289	1314–1316
John I	1316	1316–1316
Philip V the Tall	1294	1316–1322
Charles IV the Fair	1294	1322–1328

House of Valois

Philip VI	1293	1328–1350
John II the Good	1319	1350–1364
Charles V the Wise	1337	1364–1380
Charles VI the Well-Beloved	1368	1380–1422
Charles VII	1403	1422–1461
Louis XI	1423	1461–1483
Charles VIII	1470	1483–1498
Louis XII the Father of the People	1462	1498–1515
Francis I	1494	1515–1547
Henry II	1519	1547–1559
Francis II	1544	1559–1560
Charles IX	1550	1560–1574
Henry III	1551	1574–1589

House of Bourbon

Henry IV of Navarre	1553	1589–1610
Louis XIII	1601	1610–1643
Louis XIV the Great	1638	1643–1715
Louis XV the Well-Beloved	1710	1715–1774

House of Bourbon (cont'd)

Name	Born	Ruled[1]
Louis XVI	1754	1774–1792[12]
Louis XVII (Louis Charles de France)[13]	1785	1793–1795

First Republic

National Convention	....	1792–1795
Directory (Directoire)	....	1795–1799

Consulate

Napoleon Bonaparte[14]	1769	1799–1804

First Empire

Napoleon I	1769	1804–1815[15]

Restoration of House of Bourbon

Louis XVIII le Désiré	1755	1814–1824
Charles X	1757	1824–1830[16]

Bourbon-Orleans line

Louis Philippe ("Citizen King")	1773	1830–1848[17]

Second Republic

Louis Napoleon[18]	1808	1848–1852

Second Empire

Napoleon III (Louis Napoleon)	1808	1852–1871[19]

Third Republic

Louis Adolphe Thiers[20]	1797	1871–1873[21]
Marie E. P. M. de MacMahon[20]	1808	1873–1879[22]
François P. J. Grévy[20]	1807	1879–1887[23]
Sadi Carnot[20]	1837	1887–1894
Jean Casimir-Périer[20]	1847	1894–1895[24]
François Félix Faure[20]	1841	1895–1899
Émile Loubet[20]	1838	1899–1906[25]
Clement Armand Fallières[20]	1841	1906–1913[26]
Raymond Poincaré[20]	1860	1913–1920[27]
Paul E. L. Deschanel[20]	1856	1920–1920[28]
Alexandre Millerand[20]	1859	1920–1924[29]
Gaston Doumergue[20]	1863	1924–1931[30]
Paul Doumer[20]	1857	1931–1932
Albert Lebrun[20]	1871	1932–1940[31]

Vichy Government

Henri Philippe Pétain[32]	1856	1940–1944[33]

Provisional Government

Charles de Gaulle[34]	1890	1944–1946[35]
Félix Gouin[34]	1884	1946–1946[35]
Georges Bidault[34]	1899	1946–1947[35]

Fourth Republic

Vincent Auriol[20]	1884	1947–1954[35]
René Coty[20]	1882	1954–

[1] Year of end of rule is also that of death, unless otherwise indicated. [2] Crowned Emperor of the West in 800. [3] Holy Roman Emperor 814–840. [4] Holy Roman Emperor 875–877 as Charles II. [5] Ruled jointly 879–882. [6] Holy Roman Emperor 881–887 as Charles III. [7] Died 888. [8] King 893–898 in opposition to Eudes. [9] Died 929. [10] Not counted in regular line of Kings of France by some authorities. Elected by nobles but killed in Battle of Soissons. [11] Sometimes called Robert I. [12] Executed 1793. [13] Titular King only. He died in prison according to official reports, but many pretenders appeared during the Bourbon restoration. [14] As First Consul, Napoleon held the power of government. In 1804, he became Emperor. [15] Abdicated first time June 1814. Re-entered Paris Mar. 1815, after escape from Elba; Louis XVIII fled to Ghent. Abdicated second time June 1815. He named as his successor his son, Napoleon II, who was not acceptable to the Allies. He died 1821. [16] Died 1836 [17] Died 1850. [18] President; became Emperor in 1852 [19] Died 1873. [20] President. [21] Died 1877. [22] Died 1893. [23] Died 1891. [24] Died 1907. [25] Died 1929. [26] Died 1931. [27] Died 1934. [28] Died 1922. [29] Died 1942. [30] Died 1937. [31] Died 1950. [32] Chief of State. [33] Died 1951. [34] Interim President. [35] Still alive.

Rulers of Germany and Prussia

Kings of Prussia

Name	Born	Ruled[1]
Frederick I[2]	1657	1701–1713
Frederick William I	1688	1713–1740
Frederick II the Great	1712	1740–1786
Frederick William II	1744	1786–1797
Frederick William III	1770	1797–1840
Frederick William IV	1795	1840–1861
William I	1797	1861–1871[3]

Emperors of Germany

William I	1797	1871–1888
Frederick III	1831	1888–1888
William II	1859	1888–1918[4]

[1] Year of end of rule is also that of death, unless otherwise indicated. [2] Was Elector of Brandenburg (1688–1701) as Frederick III. [3] Became Emperor of Germany in 1871. [4] Died 1941. [5] President. [6] Führer. [7] Named Chancellor by President Hindenburg in 1933. [8] Still alive.

Heads of the Reich

Name	Born	Ruled[1]
Friedrich Ebert[5]	1871	1919–1925
Paul von Hindenburg[5]	1847	1925–1934
Adolf Hitler[6,7]	1889	1934–1945
Karl Doenitz[6]	1891	1945–1945[8]

Federal Republic of Germany (Western)

Theodor Heuss[5]	1884	1949–

Democratic Republic Government (Eastern)

Wilhelm Pieck[5]	1876	1949–

Rulers of Russia Since 1533

Name	Born	Ruled[1]
Ivan IV the Terrible	1530	1533–1584
Theodore I	1557	1584–1598
Boris Godunov	c.1551	1598–1605
Theodore II	1589	1605–1605
Demetrius I[2]	?	1605–1606
Basil IV Shuiski	?	1606–1610[3]
"Time of Troubles"	....	1610–1613
Michael Romanov	1596	1613–1645
Alexis I	1629	1645–1676
Theodore III	1656	1676–1682
Ivan V[4]	1666	1682–1689[5]
Peter I the Great[4]	1672	1682–1725
Catherine I	c.1684	1725–1727
Peter II	1715	1727–1730
Anna	1693	1730–1740
Ivan VI	1740	1740–1741[6]
Elizabeth	1709	1741–1762
Peter III	1728	1762–1762
Catherine II the Great	1729	1762–1796
Paul I	1754	1796–1801
Alexander I	1777	1801–1825
Nicholas I	1796	1825–1855
Alexander II	1818	1855–1881
Alexander III	1845	1881–1894
Nicholas II	1868	1894–1917[7]

Provisional Government

Prince Georgi Lvov[8]	1861	1917–1917[9]
Alexander Kerensky[8]	1881	1917–1917[10]

U.S.S.R.

Nikolai Lenin[8]	1870	1917–1924
Joseph Stalin[11]	1879	1924–1953
Georgi M. Malenkov[8]	1902	1953–1955[10]
Nikolai A. Bulganin[8]	1895	1955–

[1] Year of end of rule is also that of death, unless otherwise indicated. [2] Also known as Pseudo-Demetrius. [3] Died 1612. [4] Ruled jointly until 1689, when Ivan was deposed. [5] Died 1696. [6] Died 1764. [7] Killed 1918. [8] Premier. [9] Died 1925. [10] Still alive. [11] General Secretary of Communist party; Premier 1941–53.

Animal Names: Male, Female and Young

Source: Grace Davall, N.Y. Zoological Society.

Animal	Male	Female	Young
Ass	Jack	Jenny	Colt
Bear	He-bear	She-bear	Cub
Cat	Tom	Tabby	Kitten
Cattle	Bull	Cow	Calf
Chicken	Rooster	Hen	Chick
Deer	Buck	Doe	Fawn
Dog	Dog	Bitch	Pup
Duck	Drake	Duck	Duckling
Elephant	Bull	Cow	Calf
Fox	Dog	Vixen	Cub
Goose	Gander	Goose	Gosling
Horse	Stallion	Mare	Foal
Lion	Lion	Lioness	Cub
Rabbit	Buck	Doe	.....
Sheep	Ram	Ewe	Lamb
Swan	Cob	Pen	Cygnet
Swine	Boar	Sow	Shoat or piglet
Tiger	Tiger	Tigress	Cub
Whale	Bull	Cow	Calf
Wolf	Dog	Bitch	Cub, pup or whelp

Mason and Dixon's Line

Mason and Dixon's Line (often called the Mason-Dixon Line) is the boundary between Pennsylvania and Maryland, running at a north latitude of 39°43'19.11". The greater part of it was surveyed from 1763–67 by Charles Mason and Jeremiah Dixon, English astronomers who had been appointed to settle a dispute between the colonies. As the line was partly the boundary between the free and the slave states, it has come to signify the division between the North and the South.

PARLIAMENTARY PROCEDURE

by

Dan Golenpaul

Parliamentary procedures are rules for the conduct of a meeting in an orderly and democratic manner. Their purpose is to ensure the rule by a majority and to protect the rights of all members of an organization or assembly in meetings and in connection with all activities of the organization. The application of parliamentary rules is solely for this purpose.

Very often, though, individuals employ the rules for a contest of wits. This practice can be interesting and the life of the meeting, but it can also be a nuisance and a field day for parliamentary pests. The degree to which this activity may be tolerated should be dictated by circumstances. A certain amount of indulgence may be necessary because it is part of the game and is inevitably an expression of many egos that meet in a group.

Under no circumstances, however, should a chairman or members permit anyone to use the rules of procedure to trick and confuse members or to impede the function of a meeting. To prevent these occurrences, a knowledge of parliamentary rules is important. We will do our best in the limited space permitted to impart a little learning. (But remember, a little learning is a dangerous thing.) What we are setting forth here should be adequate to take care of most situations in organizations made up of friendly people who want to conduct their business in an orderly, friendly manner.

If it is necessary for you to be a member of a group that is involved in bitter conflicts, then we advise that you go to more technical and authoritative works on parliamentary procedure such as *Robert's Rules of Order, Cushing's Manual, Sturgis' Standard Code of Parliamentary Procedure* and others. We also suggest that you go to the meetings with a good lawyer and a baseball bat.

HOW TO FORM AN ORGANIZATION

People form or join organizations because they have a common interest or purpose that can best be advanced and attained through group activity. Whether the character of the organization be social, political, educational, communal, fraternal or athletic, its purpose and government are usually expressed in by-laws. They are not required to be elaborate, technical or legal.

BY-LAWS

By-laws should simply state the objects of the organization, the rights and duties of members, the qualifications of members, the number required to constitute a quorum, the dues, the necessary governing officers and how they should be elected, their terms of office, when meetings should be held and where, the order of business and, in the case of large and impersonal organizations, an authority for settling parliamentary disputes. (An organization usually adopts as its guide such works as mentioned heretofore.)

FIRST MEETING

At the first meeting of a group, temporary officers are chosen: a chairman, a secretary and a committee to prepare a draft of by-laws. The meeting is called to order by the member of the group who has assumed the leadership in the formation of the organization. He or she opens the meeting by the simple statement: "I now call the meeting to order," and asks the members to make nominations for chairman. When this announcement is made, members may ask for the floor by raising their hands, and, when recognized, offer a name in nomination. The person presiding can be nominated as can any other member present. Nominations require no seconding. A majority vote is necessary for the election of the chairman. The same procedure is required for the secretary and committee on by-laws.

The officers selected at the first meeting may serve until the next meeting or for a limited period, to be decided by a majority vote of the members present.

SECOND MEETING

At the second meeting, the report of the committee on by-laws is presented to the membership. The entire report may be accepted by a motion to adopt the report. A two-thirds vote is required. If the entire report is not acceptable to the membership, each provision may be considered separately; consideration consists of debating, amending, accepting or rejecting. The vote required on each provision is two-thirds of the membership present instead of the usual majority. Because by-laws are the fundamental basis of the organization, they should be acceptable to as many members as possible.

By-laws can be amended at any time during the life of the organization. Any proposals for changes in the by-laws require prior notice in writing to the entire membership before acting upon the proposed amendments at any meeting.

ELECTION OF OFFICERS

With the adoption of the by-laws providing for the type of officers for the organization, and the length of their terms, the organization proceeds to elect such officers. The usual officers for most groups are a president, vice-president, recording secretary, corresponding secretary, treasurer, sergeant at arms, and committees. Some have an executive secretary, a paid job, but an organization would have to be large to warrant a paid official.

All members are eligible for office when an organization is first formed. But later the by-laws may require a certain minimum period of membership as a qualification to hold office. Nominations are made by the simple statement: "I nominate so-and-so." The nominations do not require a second and a majority vote is necessary for election.

DUTIES OF OFFICERS

President: The president, as in government, is top man in an organization. Some organizations call this official "chairman." President sounds better, and is more appropriate when he performs not only the functions of presiding at meetings, but other duties in directing the organization. Chairman is the proper designation for one elected only to preside at a meeting.

Their duties as presiding officers are identical, regardless of title; they call the meeting to order, then present the order of business which the meeting is to act upon. They recognize members who desire the floor for a proposal or a discussion. They are supposed to see that everyone who wishes to speak has the opportunity, and to do as little talking themselves as possible. The presiding officer has the right to take part in a discussion. When he does, the vice-chairman should take the chair until the presiding officer has concluded his talk.

A chairman is really a moderator who directs, controls and regulates proceedings. He is neither a boss nor an antagonist and is not to be regarded as such by the members. It is the chairman's primary job to keep the meetings moving smoothly. He should prevent members from abusing their privileges without interference, but should not curb their rights. The chair must entertain all motions that are seconded and must restate them for the members. He must call for a vote on motions and declare the motion adopted or defeated on the basis of the vote. He should allow for a re-count or a roll call whenever requested to do so. When referring to himself, the presiding officer usually says: "The chair recognizes Mr. Blank" instead of "I recognize Mr. Blank."

The president or permanent chairman is usually an ex-officio member of all committees. Although he is not obligated to attend all meetings, he may if he so desires.

Secretary: The duties of a secretary are to keep the records of the organization, to record the minutes of the meetings, to handle the correspondence (unless the organization is large enough to require a corresponding secretary), such as notifying members of regular meetings or of a special meeting, reading the minutes at the meeting, etc.

The minutes of a secretary should indicate when the meeting was held, where it took place, who presided, what business was transacted, when the meeting adjourned, etc.

Treasurer: The treasurer's duties are to handle the funds of the organization, to collect the dues, to pay the bills when

authorized, to keep the books for the organization with records of income and expenditures, and to render reports on finances at the regular meetings.

Sergeant-at-Arms: The duties of the sergeant-at-arms are to assist the chairman in preserving order among the people present at a meeting, members and visitors, to act as a sort of usher by checking people at the door to see that only those entitled to be present at the meeting are admitted, and to escort anyone out if requested to do so by the chairman.

COMMITTEES

The purpose of committees is to expedite the transaction of business on matters that require more time than the meeting permits, or on matters that require time for investigation and special study. Committees are essential in a large organization, but are really not necessary for a small group that can handle its limited business at the regular membership meetings.

The types of committee may vary according to the needs of an organization. A "standing" committee has a fixed term of office and gives continuous service. A "special" committee serves temporarily to investigate and report on some special project or condition.

The top committee in most organizations is the executive committee, sometimes made up of the chairmen of the various committees, sometimes selected from the general membership. Other committees are: membership committees, athletic committees, education committees, social or house committees, committees on finance, temporary committees to deal with a temporary specific problem, etc.

Committees may be appointed by the presiding officer, or be elected by the group, depending upon the by-laws. We think it best for committees to be elected by the membership. The chairman of the committee is either designated by the presiding officer, elected by the committee, or is the person obtaining the most votes in the election. Committees should consist of an odd number of members to assure a majority vote and a minimum of stalemates. As far as possible, the by-laws governing the conduct of a meeting or organization govern the committees as well.

Most committees are usually made up of small groups and, therefore, their meetings are less formal than regular organization meetings. Motions do not require seconding, speeches are not as restricted and limited, and the chairman attending the committee, or the president of the organization, if attending the committee meeting, participates in the discussions on a par with the other members.

Providing for numerous officers is a good thing because it distributes responsibility among more members. This is important to keep in mind in connection with committees; while good people should be placed on many committees, it is best and advisable to have as many members on committees as possible.

The committee chairman reports for the committee to the general membership meeting. Reports of the committee may consist only of information requiring no action or may contain recommendations for certain action which is often the equivalent of a proposed motion.

When there is a difference of opinion among committee members, the majority report offered is considered the committee report. The dissenting members have the right, however, to submit a minority report proposing a different course of action. Both reports must be heard or read at the same meeting. No action on the majority report is in order until the minority report is disposed of. It can be disposed of in either of two ways. (a) Any member may object to consideration of the minority report and such objection must be voted on immediately without debate. If carried, the minority report is dropped. (b) If the objection to consideration is not upheld, then a motion to substitute the minority report for the majority report is in order. If this motion is carried, the majority report is eliminated and the minority report becomes the committee report and is the only report before the body. If the motion to substitute is not carried then the meeting proceeds to deal with the majority report.

It is well to bear in mind that any report or motion belongs to the membership

f they are not satisfied with either report, hey can dissolve the committee and act irectly from the floor or appoint a new ommittee.

The chairman of the committee calls the neetings of the committee. If he fails or efuses to do so, or if he is absent, any wo members of the committee may call a neeting. The chairman of a committee sually acts as its secretary.

If a committee fails to render a report n a matter referred to it within a rea- onable time, the membership may force to do so by drawing up a petition bear- ng the number of signatures required in he by-laws. This is called **discharging a ommittee.**

ORDER OF BUSINESS

The chairman calls the meeting to order. Ie must determine whether a quorum is resent. The number of members required o constitute a quorum is stipulated in the y-laws, usually one more than half of he membership, or as low as one-tenth f the membership. Without a quorum, usiness cannot be legally conducted. The ecretary reads the minutes of the pre- ious meeting and they are adopted, per- aps with corrections, or, as read. Officers nd committees make any reports they ave. Old business left over from the pre- ious meeting is transacted. New business brought up, discussed and acted upon. t the close, the chairman says that he ill entertain a motion for adjournment.

RULES OF DEBATE

The presiding officers should first recog- ize the mover of a proposal, or the mem- er of a committee presenting a report, nd should try to alternate recognition etween those favoring and those opposing proposition. Any member is entitled to peak on the main question and on each mendment as presented. He must confine imself to the question under considera- ion, must avoid personalities, and must ot accuse others of ill motives. In some roups the by-laws limit each speaker to fixed number of minutes. The meeting ay vote to extend the time of a speaker it so desires. Debate can only be halted y a motion for the **previous question** and two-thirds vote is required.

VOTING RULES

There are several methods of taking a vote. The simplest is by voice—"ayes" and "noes." This may be challenged by any member who thinks that the chairman did not hear correctly, in which case the vote is taken by a show of hands, or by standing. Roll call votes, recorded by the secretary, are required in some instances. The closed ballot (written votes) also is commonly used, especially in the election of officers. Only attending members may vote, unless the by-laws specifically permit proxy voting. A tie vote defeats a motion. The chairman is allowed to break a tie, though, if he has not previously voted. Some organizations permit a chairman to vote only in case of a tie, while others allow him to vote as a regular member.

A majority vote is generally required to pass ordinary motions or to adopt ordinary actions. There are certain motions which require a two-thirds vote of those present. These generally include the following: amendments to the by-laws, to take up a question out of its proper order, to suspend the rules, to support an objection to the consideration of a question, to take up the previous question, to limit debate, to expel a member or officer, to discharge a committee, or to refer back to a committee. No vote can be made unanimous if even one member present objects.

WHAT HAPPENS TO A MOTION

A motion is a proposal for action by an organization. It is made by any member who asks the chair for the floor and is properly recognized. Most motions require a second before being placed before the group. Not more than one main motion may be considered at a time. The procedure is simple. One merely says, "I move the following." The chairman then asks if anyone seconds the motion. If it is properly seconded, the chairman announces that a motion has been made and seconded, calls for a discussion and repeats the motion on request. A motion may be voted on without discussion, but discussion is required if requested by any member.

A motion causes many things to happen. It provokes debate, suggests modifications,

clarifies the thinking and expresses the will of the group on a question. Once a motion is presented to the membership, it belongs to them to treat and dispose of in any one of several ways and can only be withdrawn with the consent of the membership.

A motion may be amended. This means that the motion may be modified or qualified by adding, substituting, or eliminating words or whole paragraphs. **These changes must be relevant to the main motion.**

For example, a motion is made for the organization to publish a magazine and stipulates (a) the publication to be a monthly, (b) to have two editors, (c) to cost the members $1.00 a year, etc. This motion may be amended as follows: (a) to substitute "weekly" for "monthly," (b) to provide salaries for the two editors, (c) to eliminate the dollar charge for the magazine. All these amendments are in order because while the original motion has been amplified or qualified by the amendments, the proposal for publishing a magazine still prevails.

Amendments that are irrelevant are not permissible, such as an amendment requiring the editors to watch television. This is improper (perhaps for other reasons) because it is extraneous to the main question of proposing the publication of a magazine.

Amendments that negate the purpose of the motion, such as a proposal that the organization should not publish a magazine, are out of order because if the membership is entirely opposed to the idea, it can vote against the main motion or dismiss it in other parliamentary ways.

Other important rules governing amendments are:

1. There is no limit to the number of amendments that may be offered, but each amendment must be disposed of before a new one may be proposed.

2. After all amendments have been acted on, the meeting votes on the main motion, and all of the adopted amendments are incorporated in the main motion.

3. All amendments require a majority vote for passage.

4. A rejected amendment may not be resubmitted in identical form and no amendment may be offered reversing an amendment previously adopted.

This is not all that can happen to a motion. In addition to amendments to the motion, you are also permitted to make **amendments to the amendments.** For example, the original motion stipulates that the magazine should have two editors. An amendment provides that the editors be paid salaries. This amendment can be amended to provide what the salary should be.

Now, if you are thinking of whether you can amend the amendment to the amendment, the answer is "No." Although this has really gone far enough, there is something else you are allowed to do, for better or worse, and that is to introduce a substitute for the motion itself or for any of the amendments or for everything that has been proposed on the question. The substitute for an amendment does not modify the amendment, but replaces it and is subject to the same rules that apply to amendments.

When amendments pile up to the point of confusing the membership, resorting to a substitute for the entire proposition may be helpful. The best way to do this, under the circumstances, is for someone to move to have a special committee designated to prepare a substitute motion for the whole.

If the motion is adopted, the committee elect should withdraw from the meeting to try to reconcile any contradictions contained in the motion or the amendments. It should bring forth a clear substitute that expresses the intentions of most of the proposals.

Let us not lose sight of the fact that the purpose of a motion is not to create an endless chain of acts, but to get something done. In this connection, it is well to bear in mind that the motion and amendments do not necessarily conflict and that the proposer of a motion may accept the amendments without discussion or vote.

Motions that cannot be amended: These include such motions as questions of order or appeal, objections to consideration of the question, or motions to adjourn, to call for the order of the day, to vote, to withdraw a motion, to take up a question out

f proper order, to suspend the rules, to able, to take from the table, to reconsider, o consider the previous question, to post- one indefinitely, to amend an amendment, r to nominate. Motions to postpone in- lefinitely, to limit debate, or to recess can e amended as to time only.

DELAYING OR CANCELING CONSIDERATION OF A MOTION

It is not binding on a meeting to deal vith a motion at the time it is proposed. On the contrary, the membership has the hoice of postponing or renewing con- ideration of a motion. Here are some of he ways to attain such objectives.

Objection to consideration: Considera- ion of any issue may be stopped before liscussion begins on the question, even hough it involves interrupting the peaker, by objecting to its consideration. This objection may be made by any mem- ber and does not require a second. Objec- ion to consideration calls for an immediate ote without debate or amendment and equires a two-thirds vote. If carried, the notion is dropped for all time. The pur- ose of the act is to prevent the meeting rom dealing with a question that may be ffensive. This reason should be primary. Other reasons may be because it might vaste the time of the meeting or it may be nappropriate to deal with the question t the time. This action is very drastic and hould not be employed to gag any mem- er except the village idiot at his worst.

Motion to postpone indefinitely: This is polite way of killing a motion, at least or the moment. It differs from "Objection o consideration" insofar as the motion to ostpone indefinitely and the motion itself re debatable and cannot be made while member has the floor. This motion re- uires a second and calls for a majority ote. It cannot be amended and cannot be rought up again.

Motion to "lay on the table": If the neeting does not want to consider the notion at all, the procedure is to make a notion to "lay the question on the table." This suspends consideration of the main notion and amendments until such time as the group chooses to take it up again, which can be later at the same meeting after other business has been transacted or at any subsequent meeting. This motion must be seconded, requires a majority vote, may not be debated or amended or postponed. The only way to bring the motion back is to move to "take it off the table."

Motion to postpone to a definite date: This is an expression of the will of the meeting to put off consideration of the proposal until later in the same session or until a subsequent meeting. The object of such an act is to delay consideration of the question until more members are present, or to enable members to acquire further information before making their decisions. This motion is debatable only as to the advisability of postponement. The subject matter of the motion is not debatable. It is open for amendment as to time only and requires a majority vote.

Motion to refer to a committee: This is usually done if a meeting feels that a question requires more time and information before it acts upon it. A motion to refer to a committee names an existing committee or creates a special committee for its consideration and may be accompanied by instructions. Seconding and a majority vote are required for passage of this motion. It can be debated only as to the desirability and advisability of referring it to the committee. It can be amended only as to the nature of the committee and as to the instructions.

HOW TO REOPEN A QUESTION

To avoid finality of decisions that may be harmful to the best interests of the members, certain actions previously taken by the members are subject to review by them. Such review may apply to matters acted upon, matters postponed, or matters delegated to committees.

Motion to reconsider: This deals with something acted upon by a meeting which the members would like to reconsider at another time during the same meeting. It is a motion that should be made by one who has voted with the majority, whether in the affirmative or the negative, and is

made because the voter has changed his mind on the matter in the light of new information. Very often a member deliberately votes for or against motions so that he can move for reconsideration of the subject later in the meeting when there may be a better chance for passing or defeating the motion because more members are present or because he will have an opportunity to persuade other members to change their votes. This is both good parliamentary procedure and democratic.

A motion to reconsider requires a second, a majority vote, is debatable and cannot be renewed. If a motion to reconsider is carried, the question is before the assembly with its original parliamentary status. Motions that cannot be reconsidered include: motions to take from the table, to lay on the table, or a motion for indefinite postponement that has been defeated.

To take from the table: This motion allows a group to take up a subject that was set aside by a motion to table it at a previous meeting. This resumption of consideration on a question rates priority over any new motions and can be introduced when there is no other business before the body. Motion to take a question from the table requires a second and a majority vote, is not debatable and cannot be amended.

A motion to rescind: This motion enables the membership to re-evaluate some action taken in the past because it may have been adopted without full understanding of the consequences at that time. The point of rescinding a previous act of an organization does not apply to any legally binding act committing the organization, nor to the election of members or officers. This motion calls for a second and majority vote unless the original motion involved required a two-thirds vote. It is debatable and cannot be amended.

Several important techniques for keeping informed about proceedings, preventing violations and protecting the rights of members, correcting errors, and expediting the business at hand, are:

Moving the Previous Question: This asks that the discussion be stopped at once on any motion before the body. A move for the previous question cannot interrupt the speaker. It requires a second, is not debatable, cannot be amended, and requires a two-thirds vote. Its purpose is to say "Let's stop talking and vote."

Point of Information: This is a method of obtaining information about what is occurring through the medium of the chairman or the speaker. This interruption request is permissible even when one is speaking. It is unusual for the speaker on the chair to ignore such a request. Since it is intended only to secure information it is not proper to use this as a device to make a statement or delay proceedings.

Point of Order: This questions the correctness of any action at the time it occurs. The only time that a point of order can be employed *after* an action has taken place, is if it involves a violation of by-laws, constitution, or the law. It is raised on the basis of a mistake or omission in procedure, of a violation of the rules of the organization, of decorum in debate, or of irrelevancy of debate and procedure. A point of order needs no seconding, cannot be amended and requires no vote.

A point of order may be raised by any member at any time. It is in the nature of a demand addressed to the chair, which is required to act immediately on the point of order raised. The procedure is as follows: A member announces, "I rise to a point of order." This automatically halts any discussion or action until the chairman rules on the point of order. If the chairman concurs, he announces that the point of order was well taken, and proceeds to correct whatever is in question.

Appeal: If any other member takes exception to this ruling, he may appeal from the decision of the chair. Another basis for an appeal may result when the chair declares the point of order not well taken. This appeal is usually made by the person raising the point of order. All appeals require a second, are debatable and are subject to a majority vote of the membership. If they vote for the appeal, the chairman's decision is reversed. If they vote against the appeal, the chairman's decision is upheld. In the event of a tie vote, the chairman is sustained. If the chairman is a member of the organization, he has the right to vote and may make the tie.

Discussions on some appeals are not customary, such as questions of indecorum, violation of rules of speaking, or order of business.

Sometimes the chairman is in doubt on a point of order. When he is, he may refer to someone present for advice, or ask the members to discuss and vote on the point of order. This is the only time that a point of order is debatable. Their vote determines the chairman's decision.

Motion to adjourn: This motion is in order at any time, but should be employed with discretion. Obviously, it should not interfere with the organization's efforts to get business done. This motion requires a second, is not debatable, cannot be amended, and must be voted on immediately. A majority vote is necessary. Any motion for adjournment that refers to a specific time or place for the next meeting is subject to debate and amendment.

We have tried to project the reader into actual participation in the forming of an organization and the conduct of a meeting, and we have given more attention to the processes than to the discussion of technical rules. In following this course, we may have omitted some matters that do not occur at every meeting, but that do happen occasionally and should be understood.

Removal of officers: This is sometimes an unhappy necessity. Misconduct of an officer may involve neglect of duties, abuse of privileges or incompetence. The removal of an officer is accomplished by preferring charges which should be of a serious nature and supported by proof. The charges may be considered at a general meeting or referred to a committee to investigate and to recommend a course of action. A two-thirds vote of the members present is required to remove an officer. A motion to remove an officer is debatable.

Expulsion of members: If a member violates his obligations and duties or is involved in an act that may bring disrepute to the organization, he is subject to charges and a hearing before a committee or the membership and can be expelled by a two-thirds vote. This action is debatable. Obviously, such actions should not be undertaken unless the charges are serious and supported by substantial proof. It would be deplorable if the exercise of such a drastic action were based on a frivolous issue or personal bias. Sometimes the behavior of a member at a meeting requires disciplinary action in the form of a motion for immediate expulsion. This is not debatable and requires a two-thirds vote.

Question of privilege: A member may interrupt a meeting at any time to raise a question involving the comfort or convenience of the membership. It may concern such matters as the physical condition of the meeting hall, the seating of the members, the conduct of persons present, or the ability to hear speakers. This request requires no second, is not debatable, cannot be amended and is decided by the chair.

Suspension of the rules: The object of a proposal to suspend the rules is to permit a meeting to do something that is ordinarily prohibited by the rules of parliamentary procedure or by the adopted order of business. The suspension of rules is generally employed to deal with an emergency or special condition, such as permitting a guest speaker to start earlier than scheduled or allowing for the interruption of the regular order of business by a visiting committee. There are other circumstances under which the suspension of rules is permitted, but these cases are too complicated to be treated here. This motion cannot interrupt a speaker, requires a second, cannot be debated or amended, and requires a two-thirds vote.

We have endeavored to outline some of the basic rules for the benefit of the many people who want some simple knowledge of how to form an organization, how to conduct a meeting, or how to participate in one; also to help spectators at a convention understand what is going on. Beyond this, we refer you to the authorities on parliamentary procedure.

However important rules are for guidance in most human activities, there is no doubt that much is accomplished through informal discussion and action, and we do not hesitate to urge small friendly groups to do their business with as little formality and as few restrictions as possible. If this does not always work, we hope our book is there to serve you.

CONTRACT BRIDGE SYSTEMS

by Florence Osborn
Bridge Editor, New York Herald Tribune

THE BEST and most widely played contract bridge system—the Culbertson approach-forcing system—is basically the same today as it was 25 years ago.

This system limits use of artificial or conventional bids to specific situations, so that the whole bidding language is easily understood by partners and opponents.

There is a definite revival of interest in the point-count method of valuing a bridge hand to determine potential winners, as opposed to the Culbertson honor-trick method of counting high cards. The Work 4-3-2-1 point-count, introduced by the late Milton C. Work is most accurate for no-trump bidding, whereas the honor-trick method is most accurate for suit bidding.

Charles H. Goren, highest-ranking player of the American Contract Bridge League, has extended use of the point-count into suit bidding and uses it throughout his system, which, other than for the count, is the same as Culbertson's.

In 1954, Culbertson issued his version of point-count as applied to both suit and no-trump bidding. His approach-forcing system has undergone no serious change, but it now may be interpreted in points or honor-tricks, according to preference.

Bridge players can play according to Culbertson or Goren with no misunderstanding. The two agree on all fundamental points. They differ on the *method* of counting distribution, Culbertson counting length, Goren shortness, but the points add up the same.

Following is a digest of the new Culbertson system with both point and honor-trick requirements; following this is the Goren method of counting distribution.

CULBERTSON METHOD

Point-Count Table

Ace —4 pts.
King —3 pts.
Queen—2 pts.
Jack —1 pt.
} Add 1 point for all 4 aces. Deduct 1 point for single K, Q or J.

Average hand: 10 pts. The Deck: 40 pts.

Honor-Trick Table

2 H. T.

A-K in same suit

1½ H. T.

A-Q in same suit

1 H. T.

Ace
K-Q in same suit
K-J-10 in same suit
K-x and K-x

½ H. T.

K-x
Q-J-x
Q-x and Q-x

Average hand: 2–2½ H. T.
The deck: 8–8½ H. T.

Game and Slam Expectancies

26 points or 6–6½ H. T. in combined hands will produce game at no-trump or major suit, 29 points in minor.

33 points or 37 points (7–8 H. T.) respectively will produce a small slam or grand slam.

OPENING SUIT-BIDS OF ONE

To the high-card count add 1 pt. for each card over *four* in the trump suit and add 1 pt. for each card over *three* in all side suits. Note: Add 1 and 2 pts. for 100 and 150 honors.

13-pt. hands (3 H. T.) with a biddable suit (Q-J-x-x or better) may be opened.

14-pt. hands (3½ H. T.) should always be opened.

11- or 12-pt. hands (2+ to 2½ H. T.) and a good five-card or longer suit, may be opened.

In third position, open with 11 pts. (2+ H. T.) on a good suit.

In fourth position, open any 13-pt. hand (3 H. T.).

Note: All opening one-bids (except third or fourth hand) announce at least 2½ H. T. (defensive).

RESPONSES TO SUIT-BIDS OF ONE

To your high-card count *add* the number of points obtained by subtracting your *shortest* suit from your trump length. *Deduct* 1 pt. if your hand has no four-card or longer side suit.

Raise partner's suit-bid to two (single raise) with 6–10 pts. (1½–2 H. T.).

Raise to three (double raise, forcing) with 13–16 pts. (3–3½ H. T.).

Respond one no-trump with 6–10 pts. (1½–2 H. T.) and a balanced hand.

Respond two no-trump with 13–15 pts. (3–3½ H. T.) and a balanced hand.

Respond three no-trump with 16–18 pts. (4 H. T.), all unbid suits stopped and 4-3-3-3 pattern.

Take out to your own suit at the one-level (forcing for one round) with 6 pts. (minimum) to 17 pts. (1½–3½ H. T.).

Take out to the one- *or* the two-level (forcing for one round) with 10 pts. (minimum) to 17 pts. (2–3½ H. T.).

Make a single jump takeout (forcing to game; suggests possible slam) with 18 pts. or more (4 or more H. T.).

OPENING BIDS OF ONE NO-TRUMP AND RESPONSES

Open one no-trump with 16–18 pts. (3½–4+ H. T.), stoppers in three suits and at least Q-x in the fourth suit; provided the hand-pattern is 4-3-3-3, 4-4-3-2 (but not with both majors), 5-3-3-2 (if the long suit is a minor), and 6-3-2-2 (if the long suit is a strong minor).

Raise partner's opening one no-trump bid to two with 8–9 pts. (1½–2+ H. T.).

Raise to three no-trump with 10–14 pts. (2½–3 H. T.).

Make a small-slam *try* with 15–16 pts. (3½ H. T.) or a direct small-slam *bid* with 17–20 pts. (4–4½ H. T.). With 21 pts. (4½ H. T.), proceed similarly for a grand slam. *Note:* A takeout of one no-trump to two of a suit is forcing for one round, but a rebid of the same suit at the three-level is a sign-off.

OPENING BIDS OF TWO AND THREE NO-TRUMP AND RESPONSES

Open two no-trump with 22–24 pts. (5+–5½+ H. T.), balanced distribution and all suits stopped.

Open three no-trump with 25–27 pts. (6+–6½+ H. T.), all suits stopped and only 4-3-3-3 distribution. *Note:* With a no-trump hand but 19–21 pts. (4+–5+ H. T.), open with a one-bid in a suit.

Raise partner's two no-trump opening to three with 3–8 pts. (½–1½+ H. T.).

Try for a slam with 9 pts. (2 H. T.) or more. Any bid over an opening three no-trump is a slam try.

OPENING TWO-BIDS IN A SUIT AND RESPONSES

This unconditionally forcing-to-game bid requires:

21–22 pts. (4½–5+ H. T.) with a solid or nearly solid (one loser) six-card or longer suit.

23–26 pts. (5½–6 H. T.) with a strong six-, five- or four-card suit.

Respond negatively by bidding two no-trump with 6 pts. (1+ H. T.) or less. *Exception:* Bid a higher-ranking suit such as A-Q-x-x or A-J-10-x.

Respond positively with a suit takeout, a raise (with adequate trump support), or a jump to three no-trump with 7 pts. (1–2 H. T.) or more.

DEFENSIVE BIDDING

For overcalls (simple defense) and sacrifice bids (calculated overbids either as an opening bidder or defender) use:

Rule of Two and Three

When the opponents are bidding, and partner has passed or has made no bid, do not bid unless you can win, in your own hand,

Within 2 tricks of your contract if VULNERABLE, or

Within 3 tricks of your contract if NOT VULNERABLE.

Then you cannot be set more than 500 points, which would be the value of the opponents' game.

For strength-showing bids such as takeout doubles, no-trump overcalls and jump suit takeouts, you need 13–18 pts. (3–4 H. T.); for forcing cue bids, 19 pts. (4½ H. T.) or more.

When to Double for Penalties

Double when you can count enough *defensive winners* in the combined hands to defeat the opponents *at least two tricks*, or enough *certain* winners to defeat them one trick. Avoid doubling slams.

The expected penalty must be worth more than any contract your side can *surely* bid and make.

GOREN POINT-COUNT DIFFERENCES

The valuation offered by Goren differs chiefly in the method of counting distributional values for opening suit bids and raises, Goren counting shortness instead of length as follows:

1. In opening bids of one in a suit, the value of a hand is determined by adding to the high-card point-count:
   - 3 pts. for a void
   - 2 pts. for each singleton
   - 1 pt. for each doubleton.
2. In counting the dummy hand for raising partner's suit bid, add to the high-card point-count (plus promotional value of honors in partner's suit):
   - 5 pts. for a void
   - 3 pts. for each singleton
   - 1 pt. for each doubleton.

Deduct 1 pt. if your hand contains only three trumps, also 1 pt. if your hand is distributed 4-3-3-3.

BLACKWOOD SLAM CONVENTION

When either partner has bid a suit, a bid of four no-trump is forcing and requires partner to respond as follows: Five clubs, *lacking* an ace. Five diamonds, holding *one* ace. Five hearts, holding *two* aces. Five spades, holding *three* aces. Five no-trump (five clubs optional), holding *all four* aces.

If after one of these responses the four no-trump bidder bids *five* no-trump, his partner must then show kings on the same schedule at the six-level.

STAYMAN NO-TRUMP CONVENTION

A response of *two clubs* to an opening bid of one no-trump, 16–18 pts. (3½–4+ H. T.), does not promise a club suit but asks the opener whether or not he has a four-card major suit as part of his no-trump bid. With a showable spade suit (Q-x-x-x or better), his rebid is two spades. With a showable heart suit his rebid is two hearts. If he has neither major his rebid is two diamonds with a *minimum* 16-pt. no-trump opening, and with a maximum 18-pt. opening his rebid is two no-trump.

★ WHO'S WHO ★

Prepared by

A. N. MARQUIS CO., *Publishers of* WHO'S WHO IN AMERICA

Locations and dates are those of birth. A name in parentheses is the original name or form of the name of the individual.

The vital statistics offered in this section have been gathered from various sources, including the subjects thereof, but neither *Who's Who in America* nor the *Information Please Almanac* can guarantee the accuracy of each individual item. We have learned to accept the date and place of birth that any lady or gentleman claims for herself or himself and not argue about it. Where we have not been able to learn the date and place of birth, we have not attempted to invent the items.

ABBOTT, Bud (William) (actor); Asbury Park, N. J., Oct. 2, 1898.

ABBOTT, George (director & dramatist); Forestville, N. Y., June 25, 1889.

ABEL, Walter (actor); St. Paul, Minn., June 6, 1898.

ACHESON, Dean (U. S. statesman); Middletown, Conn., Apr. 11, 1893.

ADAMS, Franklin P. (author); Chicago, Ill., Nov. 15, 1881.

ADAMS, Samuel Hopkins (novelist); Dunkirk, N. Y., Jan. 26, 1871.

ADAMS, Sherman (Presidential Aide, U. S.); East Dover, Vt., Jan. 8, 1899.

ADDAMS, Charles (cartoonist), Wakefield, N. J., Jan. 7, 1912.

ADENAUER, Konrad (Chancellor, Ger. Fed. Rep.); Cologne, Ger., Jan. 5, 1876.

ADLER, Larry (harmonica player); Baltimore, Md., Feb. 10, 1914.

ADLER, Luther (actor); New York City, May 4, 1903.

ADLER, Mortimer J. (philosopher); New York City, Dec. 28, 1902.

AHERNE, Brian (actor); Kings Norton, Eng., May 2, 1902.

AIKEN, Conrad (poet); Savannah, Ga., Aug. 5, 1889.

AIKEN, George D. (U. S. Senator, Vt.); Dummerston, Vt., Aug. 20, 1892.

ALBANESE, Licia (soprano); Bari, It., July 22, 1913.

ALBERT, Eddie (Eddie Albert Heimberger) (actor); Rock Island, Ill., Apr. 22, 1908.

ALDA, Robert (actor); New York City, Feb. 26, 1914.

ALDINGTON, Richard (poet & novelist); Hampshire, Eng., 1892.

ALDRICH, Winthrop W. (U. S. diplomat); Providence, R. I., Nov. 2, 1885.

ALI, Mohammed (Pakistani statesman & diplomat); Barisal, E. Bengal, Oct. 19, 1909.

ALLEN, Fred (John F. Sullivan) (comedian); Cambridge, Mass., May 31, 1894.

ALLEN, Gracie (comedienne); San Francisco, Calif., July 26, 1906.

ALLEN, Mel (sports announcer); Birmingham, Ala., Feb. 14, 1913.

ALLEN, Steve (comedian); New York City; Dec. 26, 1921.

ALLOTT, Gordon L. (U. S. Senator, Colo.); Pueblo, Colo., Jan. 2, 1907.

ALLYSON, June (Jan Allyson) (actress); New York City, Oct. 7, 1923.

ALSOP, Joseph (journalist); Avon, Conn., Oct. 11, 1910.

ALSOP, Stewart (journalist); New York City, May 17, 1914.

AMECHE, Don (actor); Kenosha, Wis., May 31, 1908.

AMORY, Cleveland (author); Nahant, Mass., Sept. 2, 1917.

AMOS, (Freeman F. Gosden) (actor); Richmond, Va., May 5, 1899.

ANDERSON, Clinton P. (U. S. Senator, N. Mex.); Centerville, S. Dak., Oct. 23, 1895.

ANDERSON, Eddie. *See* Rochester.

ANDERSON, Judith (actress); Adelaide, Austr., Feb. 10, 1898.

ANDERSON, Marian (contralto); Philadelphia, Pa., Feb. 17, 1902.

ANDERSON, Maxwell (dramatist); Atlantic, Pa., Dec. 15, 1888.

ANDERSON, Victor E. (Governor, Nebr.); Havelock, Nebr., Mar. 30, 1902.

ANDREWS, Dana (actor); Collins, Miss., Jan. 1, 1912.

ANDREWS, Roy Chapman (zoologist & explorer); Beloit, Wis., Jan. 26, 1884.

ANDY (Charles J. Correll) (actor); Peoria, Ill., Feb. 2, 1890.

ANGELI, Pier (actress); Cagliari, It., June 19, 1932.

ARCARO, Eddie (jockey); Cincinnati, Ohio, Feb. 19, 1916.

ARCHIPENKO, Alexander (sculptor); Kiev, Rus., May 30, 1887.

ARDEN, Eve (Eunice Quedens) (actress); Mill Valley, Calif.

ARLEN, Harold (Hyman Arluck) (composer); Buffalo, N. Y., Feb. 15, 1905.

ARMSTRONG, Henry (boxer); St. Louis, Mo., Dec. 12, 1912.
ARMSTRONG, Louis (trumpeter); New Orleans, La., July 4, 1900.
ARNAZ, Desi (Desiderio) (actor & band leader); Santiago, Cuba, Mar. 2, 1917.
ARNO, Peter (cartoonist); New York City, Jan. 8, 1904.
ARNOLD, Edward (actor); New York City, Feb. 18, 1890.
ARONSON, J. Hugo (Governor, Mont.); Gallstad, Swed., Sept. 1, 1891.
ARRAU, Claudio (pianist); Chilian, Chile, Feb. 6, 1904.
ARTHUR, Jean (Gladys Greene) (actress); New York City, Oct. 17, 1908.
ASCH, Sholem (novelist); Kutno, Pol., Nov. 1, 1880.
ASTAIRE, Fred (Frederick Austerlitz) (dancer & actor); Omaha, Neb., May 10, 1899.
ATKINSON, Brooks (drama critic); Melrose, Mass., Nov. 28, 1894.
ATKINSON, Ted (jockey); Toronto, Ont., Can., June 17, 1916.
ATTLEE, Clement R. (British statesman); London, Eng., Jan. 3, 1883.
AUDEN, W. H. (Wystan Hugh) (poet); York, Eng., Feb. 21, 1907.
AUER, Mischa (actor); Petrograd, Rus., Nov. 17, 1905.
AUTRY, Gene (actor); Tioga, Tex., Sept. 29, 1907.
AVERY, Sewell L. (business executive); Saginaw, Mich., Nov. 4, 1873.
AYRES, Lew (actor); Minneapolis, Minn., Dec. 28, 1908.

BACALL, Lauren (actress); New York City, Sept. 16, 1924.
BACCALONI, Salvatore (basso); Rome, It., Apr. 14, 1900.
BACKHAUS, Wilhelm (pianist); Leipzig, Ger., Mar. 26, 1884.
BAER, Max (boxer); Omaha, Nebr., Feb. 11, 1909.
BAILEY, Pearl (singer); Newport News, Va., Mar. 29, 1918.
BAINTER, Fay (actress); Los Angeles, Calif., 1893.
BAKER, Josephine (singer); St. Louis, Mo., 1907.
BALANCHINE, George (ballet director); St. Petersburg, Rus., Jan. 9, 1904.
BALDWIN, Faith (novelist); New Rochelle, N. Y., Oct. 1, 1893.
BALL, Lucille (actress); Jamestown, N. Y., Aug. 6, 1911.
BAMPTON, Rose (contralto); Cleveland, Ohio, Nov. 28, 1909.
BANKHEAD, Tallulah (actress); Huntville, Ala., Jan. 31, 1903.
BANNISTER, Roger (mile runner); Harrow, Eng., Mar. 24, 1929.
BAO DAI (ruler, Viêt-Nam); Annam, Indo-China, Oct. 22, 1913.
BARBER, Red (Walter L.) (sports announcer); Columbus, Miss., Feb. 17, 1908.
BARBER, Samuel (composer); West Chester, Pa., Mar. 9, 1910.
BARBIROLLI, Sir John (orchestra conductor); London, Eng., Dec. 2, 1899.
BARKER, Lex (actor); Rye, N. Y., May 8, 1919.
BARKLEY, Alben W. (U. S. Senator, Ky.); Graves Co., Ky., Nov. 24, 1877
BARRETT, Frank A (U. S. Senator, Wyo.); Omaha, Nebr., Nov. 10, 1892.
BARRYMORE, Ethel (actress); Philadelphia, Pa., Aug. 15, 1879.
BARTHELMESS, Richard (actor); New York City, May 9, 1897.
BARTHOLOMEW, Freddie (actor); London, Eng., Mar. 28, 1924.
BARTON, James (actor); Gloucester, N. J., Nov. 1, 1890.
BARUCH, Bernard (financier); Camden, S C., Aug. 19, 1870.
BASIE, Count (William) (band leader); Red Bank, N. J., Aug. 21, 1906.
BATCHELOR, Clarence Daniel (cartoonist); Osage City, Kans.
BATISTA y ZALDÍVAR, Fulgencio (President, Cuba); Banes, Cuba, Jan. 16, 1901.
BAUDOUIN (King, Belgium); Palace of Laeken, Belg., Sept. 7, 1930.
BAUGH, Sammy (football coach); Temple, Tex., Mar. 17, 1914.
BAUM, Vicki (novelist); Vienna, Aus., Jan. 24, 1896.
BAXTER, Anne (actress); Michigan City, Ind., May 7, 1923.
BAZIOTES, William (painter); Pittsburgh, Pa., June 11, 1912.
BEALL, J. Glenn (U. S. Senator, Md.); Frostburg, Md., June 5, 1894.
BECK, David (labor leader); Stockton, Calif., June 16, 1894.
BEEBE, William (zoologist); Brooklyn, N. Y., July 29, 1877
BEECHAM, Sir Thomas (orchestra conductor); St. Helens, Eng., Apr. 29, 1879.
BEERHOHM, Sir Max (novelist); London), Eng., Aug. 24, 1872.
BEHRMAN, S. N. (Samuel N.) (dramatist); Worcester, Mass., June 9, 1893.
BELLAMY, Ralph (actor); Chicago, Ill., June 17, 1905.
BEMELMANS, Ludwig (essayist); Meran, Tirol, Apr. 27, 1898.
BENDER, George H. (U. S. Senator, Ohio); Cleveland, Ohio, Sept. 27, 1896.
BENDIX, William (actor); New York City, Jan. 14, 1906.
BEN-GURION, David (Israeli statesman); Plónsk, Pol., Oct. 16, 1886.
BENNETT, Joan (actress); Palisades, N. J., Feb. 27, 1910.
BENNETT, Robert Russell (composer); Kansas City, Mo., June 15, 1894.
BENNETT, Wallace F. (U. S. Senator, Utah); Salt Lake City, Utah, Nov. 13, 1898.
BENNY, Jack (Benny Kubelsky) (comedian); Waukeegan, Ill., Feb. 14, 1894.
BENSON, Ezra Taft (Secy. of Agriculture, U. S.); Whitney, Idaho, Aug. 4, 1899.
BENTON, Thomas Hart (painter); Neosho, Mo., Apr. 15, 1889.
BERGEN, Edgar (ventriloquist); Chicago, Ill., Feb. 16, 1903.
BERGMAN, Ingrid (actress); Stockholm, Swed., 1917.
BERLE, Milton (Milton Berlinger) (comedian); New York City, July 12, 1908.

BERLIN, Irving (Isidore Baline) (song writer); Temen, Russia, May 11, 1888.
BERNSTEIN, Leonard (composer & conductor); Lawrence, Mass., Aug. 25, 1918.
BERRA, Yogi (Lawrence) (baseball player); St. Louis, Mo., May 12, 1925.
BERRYMAN, James T. (cartoonist); Washington, D. C., June 8, 1902.
BEST, Edna (actress); Hove, Sussex, Eng., Mar. 3, 1900.
BETTIS, Valerie (actress & dancer); Houston, Tex.
BEVAN, Aneurin (British Labour leader); Tredegar, Eng., Nov. 1897.
BIBLE, Alan (U. S. Senator, Nev.); Lovelock, Nev., Nov. 20, 1909.
BICKFORD, Charles (actor); Cambridge, Mass.
BIDAULT, Georges (French statesman); Moulins, Fr., Oct. 5, 1899.
BING, Rudolf (opera executive); Vienna, Aus., Jan. 9, 1902.
BJORLING, Jussie (tenor); Stora Tuna Dalarna, Swed., Feb. 2, 1911.
BLACK, Hugo L. (U. S. jurist); Harlan, Ala., Feb. 27, 1886.
BLACKMER, Sidney (actor); Salisbury, N. C., July 13, 1898.
BLAIK, Earl H. (football coach); Detroit, Mich., Feb. 15, 1897.
BLAINE, Vivian (actress); Newark, N. J., Nov. 21, 1921.
BLITZSTEIN, Marc (composer); Philadelphia, Pa., Mar. 2, 1905.
BLOCH, Ernest (composer); Geneva, Switz., July 24, 1880.
BLOCK, Herbert L. *See* Herblock.
BLYTH, Ann (actress); Mt. Kisco, N. Y., Aug. 16, 1928.
BOGART, Humphrey (actor); New York City, Dec. 25, 1900.
BOGGS, J. Caleb (Governor, Del.); Cheswold, Del., May 15, 1909.
BOHLEN, Charles E. (U. S. diplomat); Clayton, N. Y., Aug. 30, 1904.
BOHR, Niels (physicist); Copenhagen, Den., Oct. 7, 1885.
BOLGER, Ray (actor); Dorcester, Mass, Jan. 10, 1906.
BOOTH, Shirley (Thelma Booth Ford) actress); New York City, Aug. 30, 1907.
BORGE, Victor (pianist & comedian); Copenhagen, Den., Jan. 3, 1909.
BORI, Lucrezia (Lucrecia Borja González de Riancho) (soprano); Valencia, Sp., Dec. 24, 1887.
BORZAGE, Frank (movie director); Salt Lake City, Utah, Apr. 23, 1893.
BOSTWICK, Pete (George H.) (polo player); New York City, Aug. 14, 1909.
BOSWELL, Connie (singer); New Orleans, La., Dec. 3.
BOTTOME, Phyllis (novelist); Rochester, Eng., May 31, 1884.
BOUDREAU, Lou (baseball manager); Harvey, Ill., July 17, 1917.
BOWEN, Catherine Drinker (biographer); Haverford, Pa., Jan. 1, 1897.
BOWEN, Elizabeth (novelist); Dublin, Ire., June 7, 1899.
BOWLES, Chester (U. S. diplomat); Springfield, Mass., Apr. 5. 1901.
BOWLES, Paul (novelist); New York City, Dec. 30, 1910.
BOYD, William (actor); Cambridge, Ohio, June 5, 1898.
BOYER, Charles (actor); Figeac, Fr., Aug. 28, 1899.
BOYLE, Kay (novelist & poet); St. Paul, Minn., Feb. 19, 1903.
BRACKEN, Eddie (actor); Astoria, N. Y., Feb. 7, 1920.
BRADDOCK, James J. (boxer); North Bergen, N. J., Dec. 6, 1905.
BRADLEY, Omar N. (U. S. general); Clark, Mo., Feb. 12, 1893.
BRAILOWSKY, Alexander (pianist); Kiev, Rus., Feb. 16, 1896.
BRANDO, Marlon (actor); Omaha, Nebr., Apr. 3, 1924.
BRAQUE, Georges (painter); Argenteuil, Fr., May 13, 1882.
BRENNAN, Walter (actor); Lynn, Mass., July 25, 1894.
BRICKER, John W. (U. S. Senator, Ohio); Madison Co., Ohio, Sept. 6, 1893.
BRIDGES, H. Styles (U. S. Senator, N. H.); West Pembroke, Me., Sept. 9, 1898.
BRITTEN, Benjamin (composer); Lowestoft, Eng., Nov. 22, 1913.
BROMFIELD, Louis (novelist); Mansfield, Ohio, Dec. 27, 1896.
BROOK, Alexander (painter); Brooklyn, N. Y., July 14, 1898.
BROOKS, Van Wyck (literary critic); Plainfield, N. J., Feb. 16, 1886.
BROWN, Cecil (radio commentator); New Brighton, Pa., Sept. 14, 1907.
BROWN, Joe E. (actor); Holgate, Ohio, July 28, 1892.
BROWN, John Mason (drama critic); Louisville, Ky., July 3, 1900.
BROWN, Pamela (actress); London, Eng., July 8, 1918.
BROWN, Vanessa (Smylla Brind) (actress); Vienna, Aus., Mar. 24, 1928.
BROWNELL, Herbert, Jr. (Attorney General, U. S.); Peru, Nebr., Feb. 20, 1904.
BRUCE, Carol (singer); Great Neck, N. Y., Nov. 15, 1919.
BRUNDAGE, Avery (sports executive); Detroit, Mich., Sept. 28, 1887.
BRUNSDALE, Norman (Governor, N. Dak.); Sherbrooke, N. Dak., July 9, 1891.
BRYNNER, Yul (actor); Sakhalin (an island off Japan), 1915.
BRYSON, Lyman (educator); Valentine, Nebr., July 12, 1888.
BUCK, Pearl S. (novelist); Hillsboro, W. Va., June 26, 1892.
BUDGE, J. Donald (tennis player); Oakland, Calif., June 13, 1915.
BULGANIN, Nikolai A. (Soviet statesman); Nizhni-Novgorod, Rus., June 11, 1895.
BURCHFIELD, Charles E. (watercolorist); Ashtabula, Ohio, Apr. 9, 1893.
BURKE, Adm. Arleigh A. (Ch. of Naval Oper., U. S.); Boulder, Colo., Oct. 19, 1901.
BURKE, Billie (actress); Washington, D C., Aug. 7, 1886.
BURNS, Arthur F. (Econ. Adv. to President, U. S.); Stanislau, Aus., Apr. 27, 1904.
BURNS, George (Nathan Birnbaum) (comedian); New York City, Jan. 20, 1896.

BURROWS, Abe (comedian & gag writer); New York City, Dec. 18, 1910.
BURTON, Harold H. (U. S. jurist); Jamaica Plain, Mass., June 29, 1888.
BURTON, Richard (actor); Wales, 1926.
BUSH, Prescott (U. S. Senator, Conn.); Columbus, Ohio, May 15, 1895.
BUSH, Vannevar (engineer); Everett, Mass., Mar. 11, 1890.
BUTLER, John M. (U. S. Senator, Md.); Baltimore, Md., July 21, 1897.
BUTLER, Richard Austen (British statesman); Attock Serai, India, Dec. 9, 1902.
BUTTONS, Red (Aaron Chwatt) (comedian); New York City, Feb. 5, 1919.
BYRD, Harry F. (U. S. Senator, Va.); Martinsburg, W. Va., June 10, 1887.
BYRD, Richard E. (explorer); Winchester, Va., Oct. 25, 1888.

CABELL, James Branch (novelist); Richmond, Va., Apr. 14, 1879.
CADMUS, Paul (painter & etcher); New York City. Dec. 17, 1904.
CAESAR, Sid (comedian); Yonkers, N. Y., Sept. 8, 1922.
CAGNEY, James (actor); New York City, July 17, 1904.
CAIN, James M. (novelist); Annapolis, Md., July 1, 1892.
CALDER, Alexander ("mobile" sculptor); Lawnton, Pa., July 22, 1898.
CALDWELL, Erskine (novelist); White Oak, Ga., Dec. 17, 1903.
CALDWELL, Taylor (novelist); Preswich, Eng., Sept 7, 1900.
CALHERN, Louis (actor); N. Y. C., 1895.
CALLAS, Maria (soprano); New York City, Dec. 4, 1923.
CALLOWAY, Cab (band leader); Rochester, N. Y., Dec. 25, 1907.
CAMPANELLA, Roy (baseball player); Homestead, Pa., Nov. 19, 1921.
CAMUS, Albert (novelist); Algiers, 1913.
CANBY, Henry Seidel (literary critic); Wilmington, Del., Sept. 6, 1878.
CANIFF, Milton (cartoonist); Hillsboro, Ohio, Feb. 28, 1907.
CANOVA, Judy (actress); Jacksonville, Fla., Nov. 20, 1916.
CANTOR, Eddie (Edward Iskowitz) (comedian); New York City, Jan. 31, 1892.
CAPEHART, Homer E. (U. S. Senator, Ind.); Algiers, Ind., June 6, 1897.
CAPOTE, Truman (novelist); New Orleans, La., Sept. 30, 1924.
CAPP, Al (cartoonist); New Haven, Conn., Sept. 28, 1909.
CAPRA, Frank (movie director); Palermo, Sicily, May 18, 1897.
CAREY, MacDonald (actor); Sioux City, Iowa, Mar. 15, 1913.
CARLE, Frankie (pianist); Providence, R. I., Mar. 15, 1903.
CARLSON, Frank (U. S. Senator, Kans.); Concordia, Kans., Jan. 23, 1893.
CARLSON, Richard (actor); Albert Lea, Minn, Apr. 29, 1912.
CARMICHAEL, Hoagy (song writer); Bloomington, Ind., Nov. 22, 1899.
CARNOVSKY, Morris (actor); St. Louis, Mo., 1898.
CARON, Leslie (actress); Paris, Fr., July 1.
CARRADINE, John (actor); New York City, Feb. 5, 1906.
CARROLL, John (painter); Wichita, Kans., Aug. 14, 1892.
CARROLL, Leo G. (actor); Weedon, Eng.
CARROLL, Madeleine (actress); Bromwich, Eng., Feb. 26, 1909.
CARROLL, Paul Vincent (dramatist); Dundalk, Ire., July 10, 1900.
CARSON, Jack (actor); Carman, Can., Oct. 27, 1910.
CARSON, Rachel (science writer); Springdale, Pa., May 27, 1907.
CARY, Joyce (novelist); Londonderry, Ire., Dec. 7, 1888.
CASADESUS, Robert (pianist); Paris, Fr., Apr. 7, 1899.
CASALS, Pablo (cellist); Vendrell, Sp., Dec. 29, 1876.
CASE, Clifford P. (U. S. Senator, N. J.); Franklin Park, N. J., Apr. 16, 1904.
CASE, Francis (U. S. Senator, S. Dak.); Everly, Iowa, Dec. 9, 1896.
CAVALLERO, Carmen (band leader); New York City, May 6, 1913.
CHAGALL, Marc (painter); Vitebsk, Rus., July 7, 1887.
CHAMPION, Gower (dancer & actor); Geneva, Ill., June 22.
CHAMPION, Marge (dancer & actress); Los Angeles, Calif., Sept. 2.
CHANDLER, Jeff (Ira Grossel) (actor); Brooklyn, N. Y., Dec. 15, 1918.
CHANNING, Carol (comedienne); Seattle, Wash., Jan. 31, 1921.
CHAPLIN, Charles (comedian); London, Eng., Apr. 16, 1889.
CHARLES, Ezzard (boxer); Atlanta, Ga., July 7, 1921.
CHARISSE, Cyd (Tula Finklea) (actress, dancer); Amarillo, Tex., Mar. 8, 1923.
CHASE, Ilka (actress); New York City, Apr. 8, 1905.
CHAVEZ, Carlos (composer); near Mexico City, Mex., June 13, 1899.
CHAVEZ, Dennis (U. S. Senator, N. Mex.); Los Chavez, N. Mex., Apr. 8, 1888.
CHEVALIER, Maurice (actor); Paris, Fr., Sept. 12, 1888.
CHIANG Kai-shek (President, Nat. China); Feng-hwa, China, Oct. 31, 1887.
CHIRICO, Giorgio de (painter); Volo, Gr., July 10, 1888.
CHOU En-lai (Premier, Comm. China); Huai-yin, China, 1898.
CHRISTIAN, Linda (actress); Tampico, Mex., 1925.
CHRISTIE, Agatha (novelist); Torquay, Eng., 189?.
CHURCHILL, Sarah (actress); London, Eng., Oct. 7, 1914.
CHURCHILL, Sir Winston S. (British statesman); Oxfordshire, Eng., Nov. 30, 1874.
CLAIR, René (René Chomette) (movie director); Paris, Fr., Nov. 11, 1898.
CLAIRE, Ina (Ina Fagan) (actress); Washington, D. C., Oct. 15, 1892.
CLARK, Bobby (comedian); Springfield, Ohio, June 16, 1888.
CLARK, Dane (actor); New York City, Feb. 18, 1915.

CLARK, Thomas C. (U. S. jurist); Dallas, Tex., Sept. 23, 1899.
CLEMENT, Frank G. (Governor, Tenn.); Dickson, Tenn., June 2, 1920.
CLEMENTS, Earle C. (U. S. Senator, Ky.); Morganfield, Ky., Oct. 22, 1896.
CLIFT, Montgomery (actor); Omaha, Nebr., Oct. 17, 1920.
CLOETE, Stuart (novelist); Paris, Fr., July 23, 1897.
CLOONEY, Rosemary (singer); Maysville, Ky.
CLURMAN, Harold (stage director); New York City, Sept. 18, 1901.
COBB, Lee J. (actor); New York City, Dec. 8, 1911.
COBB, Ty (Tyrus R.) (baseball player); Banks Co., Ga., Dec. 17, 1886.
COBURN, Charles (actor); Savannah, Ga., June 19, 1877.
COCA, Imogene (comedienne); Philadelphia, Pa.
COCTEAU, Jean (poet & dramatist); Maisons-Laffitte, Fr., July 5, 1891.
COLBERT, Claudette (Lily Chauchoin) (actress); Paris, Fr., Sept. 13, 1905.
COLLINGE, Patricia (actress); Dublin, Ire., Sept. 20, 1894.
COLLINS, LeRoy (Governor, Fla.); Tallahassee, Fla., Mar. 10, 1909.
COLMAN, Ronald (actor); Richmond, Eng., Feb. 9, 1891.
COMMAGER, Henry S. (historian); Pittsburgh, Pa., Oct. 25, 1902.
COMO, Perry (Pierino) (singer); Canonsburg, Pa., May 18, 1913.
COMPTON, Arthur H. (physicist); Wooster, Ohio, Sept. 10, 1892.
CONANT, James B. (U. S. diplomat); Dorchester, Mass., Mar. 26, 1893.
CONNELLY, Marc (dramatist); McKeesport, Pa., Dec. 13, 1890.
CONNOLLY, Maureen (tennis player); San Diego, Calif., Sept. 17, 1934.
CONROY, Frank (actor); Derby, Eng., Oct. 14, 1890.
CONTE, Richard (actor); New York City, Mar. 24, 1914.
COOGAN, Jackie (actor); Los Angeles, Calif., Oct. 26, 1914.
COOK, Donald (actor); Portland, Oreg., Sept. 26, 1901.
COOKE, Alistair (news commentator); Manchester, Eng., Nov. 20, 1908.
COOPER, Gary (Frank) (actor); Helena, Mont., May 7, 1901.
COOPER, Jackie (actor); Los Angeles, Calif., Sept. 15, 1922.
COPLAND, Aaron (composer); Brooklyn, N. Y., Nov. 14, 1900.
COREY, Wendell (actor); Dracut, Mass., Mar. 20, 1914.
CORNELL, Katharine (actress); Berlin, Ger., Feb. 16, 1898.
CORRELL, Charles J. *See* Andy
COSTAIN, Thomas Bertram (novelist); Brantford, Ont., Can., May 8, 1885.
COSTELLO, Lou (Louis Cristillo) (actor); Paterson, N. J., Mar. 6, 1908.
COTTEN, Joseph (actor); Petersburg, Va., 1905.
COTTON, Norris (U. S. Senator, N. H.); Warren, N. H., May 11, 1900.
COTY, René (Pres., France), Le Havre, Fr., Mar. 20, 1882.
COWARD, Noel (dramatist & actor); Teddington, Eng., Dec. 16, 1899.
COWLES, Gardner (publisher); Algona, Iowa, Jan. 31, 1903.
COWLEY, Malcolm (critic & editor); Belsano, Pa., Aug. 24, 1898.
COX, James M. (publisher); Jacksonburg, Ohio, Mar. 31, 1870.
COX, Wally (Wallace Maynard Cox) (comedian); Detroit, Mich., Dec. 6, 1924.
COZZENS, James Gould (novelist); Chicago, Ill., Aug. 19, 1903.
CRAIG, George N. (Governor, Ind.); Brazil, Ind., Aug. 6, 1909.
CRAIN, Jeanne (actress); Barstow, Calif., May 25, 1925.
CRAWFORD, Broderick (actor); Philadelphia, Pa., Dec. 9, 1911.
CRAWFORD, Joan (Lucille LeSueur) (actress); San Antonio, Tex., Mar. 23, 1908.
CRONIN, A. J. (Archibald J. Cronin) (novelist); Cardross, Scot., July 19, 1896.
CRONIN, Joe (baseball executive); San Francisco, Calif., Oct. 12, 1906.
CRONYN, Hume (actor); London, Ont., Can.
CROSBY, Bing (Harry) (actor & singer); Tacoma, Wash., May 2, 1904.
CROSBY, Bob (band leader & actor); Spokane, Wash., Aug. 23, 1913.
CROSS, Milton (radio announcer); New York City, Apr. 16, 1897.
CROTHERS, Rachel (dramatist); Bloomington, Ill., Dec. 12, 1878.
CROUSE, Russel (dramatist); Findlay, Ohio, Feb. 20, 1893.
CUGAT, Xavier (orchestra leader); Barcelona, Sp., Jan. 1, 1900.
CUKOR, George (movie director); New York City, July 7, 1899.
CUMMINGS, E. E. (Edward Estlin Cummings) (poet); Cambridge, Mass., Oct. 14, 1894.
CUMMINGS, Robert (actor); Joplin, Mo., June 9, 1910.
CURTIS, Carl T. (U. S. Senator, Nebr.); nr. Minden, Nebr., Mar. 15, 1905.
CURTIS, Tony (actor); New York City, June 3, 1925.
CURTIZ, Michael (movie director); Budapest, Hung., Dec. 24, 1888.
CURZON, Clifford (pianist); London, Eng., May 18, 1907.

DAHL, Arlene (actress); Minneapolis, Minn., Aug. 11.
DALI, Salvador (painter); Figqeras, Sp., May 11, 1904.
DAMONE, Vic (singer); Brooklyn, N. Y., June 12, 1928.
DANIEL, Price (U. S. Senator, Tex.); Dayton, Tex., Oct. 10, 1910.
DANIELS, Billy (singer); Jacksonville, Fla., Sept. 14, 1912.
DANILOVA, Alexandra (dancer); Peterhof, Rus.
DARCEL, Denise (actress); Paris, Fr., 1926.
DARNELL, Linda (actress); Dallas, Tex.
DARRIEUX, Danielle (actress); Bordeaux, Fr., May 1, 1917.
DAVIES, Marion (actress); New York City, Jan. 1, 1900.

DAVIS, Bette (actress); Lowell, Mass., Apr. 5, 1908.
DAVIS, Elmer (radio commentator); Aurora, Ind., Jan. 13, 1890.
DAVIS, Stuart (painter); Philadelphia, Pa., Dec. 7, 1894.
DAY, Dennis (singer); New York City, May 21, 1917.
DAY, Doris (Doris von Kappelhoff) (singer); Cincinnati, Ohio, Apr. 3, 1924.
DAY, Laraine (Loraine Johnson) (actress); Roosevelt, Utah, Oct. 13, 1920.
DEAN, Dizzy (Jay Hanna Dean) (baseball player); Lucas, Ark., Jan. 16, 1911.
DE GAULLE, Charles (French statesman); Lille, Fr., Nov. 22, 1890.
DE HAVEN, Gloria (actress); Los Angeles, Calif., July 23.
DE HAVILAND, Olivia (actress); Tokyo, Jap., July 1, 1916.
DE LA MARE, Walter (poet); Charlton, Eng., Apr. 25, 1873.
DEMARET, Jim (golfer); Houston, Tex., May 10, 1910.
DEMILLE, Agnes (choreographer); New York City.
DEMILLE, Cecil B. (movie director); Ashfield, Mass., Aug. 12, 1881.
DEMPSEY, Jack (William H.) (boxer); Manassa, Colo., June 24, 1894.
DERAIN, André (painter); Chatou, Fr., June 10, 1880.
DEREK, John (actor); Hollywood, Calif., Aug. 12, 1926.
DE SICA, Vittorio (actor & movie director); Sora, It., July 7, 1901.
DE VALERA, Éamon (Irish statesman); New York City, Oct. 14, 1882.
DEVINE, Andy (actor); Flagstaff, Ariz., Oct. 7, 1905.
DE VOTO, Bernard (novelist & critic); Ogden, Utah, Jan. 11, 1897.
DEWEY, Thomas E. (U. S. statesman); Owosso, Mich., Mar. 24, 1902.
DE WILDE, Brandon (actor); New York City, Apr. 9, 1942.
DIETRICH, Marlene (Maria Magdalena von Losch) (actress); Berlin, Dec. 27, 1904.
DILLARD, Harrison (hurdler); Cleveland, Ohio, July 8, 1923.
DILLON, C. Douglas (U. S. diplomat); Geneva, Switz., Aug. 21, 1909.
DIMAGGIO, Joe (baseball player); Martinez, Calif., Nov. 25, 1914.
DIOR, Christian (fashion designer); Granville, Normandy, Fr., Jan. 21, 1905.
DIRKSEN, Everett M. (U. S. Senator, Ill.); Pekin, Ill., Jan. 4, 1896.
DISNEY, Walt (animated cartoonist); Chicago, Ill., Dec. 5, 1901.
DODDS, Harold Willis (educator); Utica, Pa., June 28, 1889.
DOHNÁNYI, Ernst von (composer); Pressburg, Slovakia, July 27, 1877.
DOLIN, Anton (dancer & choreographer); Slinfold, Sussex, Eng., July 27, 1904.
DONAT, Robert (actor); Withington, Eng., Mar. 18, 1905.
DONLEVY, Brian (actor); Portadown, Ire., Feb. 9, 1903.
DONNELLY, Phil M. (Governor, Mo.); Lebanon, Mo., Mar. 6, 1891.
DORATI, Antal (orchestra conductor); Budapest, Hung., Apr. 9, 1906.
DORSEY, Tommy (band leader); Mahanoy Plane, Pa., Nov. 19, 1905.
DOS PASSOS, John (novelist); Chicago, Ill., Jan. 14, 1896.
DOUGLAS, Kirk (Issur Danielovitch) (actor); Amsterdam, N. Y., Dec. 9, 1916.
DOUGLAS, Melvyn (Melvyn Hesselberg) (actor); Macon, Ga., Apr. 5, 1901.
DOUGLAS, Paul (actor); Philadelphia, Pa., Apr. 11, 1907.
DOUGLAS, Paul H. (U. S. Senator, Ill.); Salem, Mass., Mar. 26, 1892.
DOUGLAS, William O. (U. S. jurist); Maine, Minn., Oct. 16, 1898.
DOWLING, Eddie (actor & director); Woonsocket, R. I., Dec. 9, 1894.
DOWNEY, Morton (singer); Wallingford, Conn., Nov. 14, 1902.
DRAKE, Alfred (singer & actor); New York City, Oct. 7, 1914
DRAPER, Paul (dancer); Florence, It., Oct. 25, 1911.
DRAPER, Ruth (actress); New York City, Dec. 2, 1884.
DRESSEN, Chuck (Charles) (baseball manager); Decatur, Ill., Sept. 20, 1898.
DRUMMOND, Roscoe (journalist); Theresa, N. Y.
DUBINSKY, David (labor leader); Brest-Litovsk, Pol., Feb. 22, 1892.
DUCLOS, Jacques (French Communist leader); Louey, Fr., Oct. 2, 1896.
DUFF, James H. (U. S. Senator, Pa.); Mansfield (now Carnegie), Pa., Jan. 21, 1883.
DUFFY, Edmund (cartoonist); Jersey City, N. J., Mar. 1, 1899.
DULLES, Allen W. (CIA Director, U. S.); Watertown, N. Y., Apr. 7, 1893.
DULLES, John Foster (Secy. of State, U. S.); Washington, D. C., Feb. 25, 1888.
DU MAURIER, Daphne, (novelist); London, Eng., May 13, 1907.
DUNCAN, Todd (singer); Danville, Ky., Feb. 12, 1903.
DUNHAM, Katherine (dancer); Chicago, Ill.
DUNNE, Irene (actress); Louisville, Ky., Dec. 20, 1904.
DUNNOCK, Mildred (actress); Baltimore, Md.
DURANTE, Jimmy (comedian); New York City, Feb. 10, 1893.
DURBIN, Deanna (Edna) (actress); Winnipeg, Can., Dec. 4, 1922.
DUROCHER, Leo (former baseball manager); West Springfield, Mass., July 27, 1906.
DWINELL, Lane (Governor, N. H.); Newport, Vt., Nov. 14, 1906.
DWORSHAK, Henry C. (U. S. Senator, Idaho); Duluth, Minn., Aug. 29, 1894.
DYKES, Jimmie (baseball manager); Philadelphia, Pa., Nov. 10, 1896.

EASTLAND, James O. (U. S. Senator, Miss.); Doddsville, Miss., Nov. 28, 1904.
EASTMAN, Max (social writer); Canandaigua, N. Y., Jan. 4, 1883.
ECKSTINE, Billy (singer); Pittsburgh, Pa., July 8, 1914.

EDDY, Nelson (baritone); Providence, R. I., June 29, 1901.
EDEN, Sir Anthony (Prime Minister, Gr. Brit.); England, June 12, 1897.
EGLEVSKY, André (dancer); Moscow, Rus., Dec. 21, 1917.
EISENHOWER, Dwight D. (President, U. S.); Denison, Tex., Oct. 14, 1890.
EISENHOWER, Milton S. (educator); Abilene, Kans., Sept. 15, 1899.
ELDRIDGE, Florence (Florence McKechnie) (actress); Brooklyn, N. Y., Sept. 5, 1901.
ELIOT, T. S. (Thomas Stearns Eliot) (poet); St. Louis, Mo., Sept. 26, 1888.
ELIZABETH II (Queen, Gr. Brit., etc.); London, Eng., Apr. 21, 1926.
ELLENDER, Allen J., Sr. (U. S. Senator, La.); Montegut, La., Sept. 24, 1891.
ELLINGTON, Duke (Edward) (band leader); Washington, D. C., Apr. 29, 1899.
ELMAN, Mischa (violinist); Stalnoye, Rus., Jan. 20, 1891.
EMERSON, Faye (actress); Elizabeth, La., July 8, 1917.
EPSTEIN, Sir Jacob (sculptor); New York City, Nov. 10, 1880.
ERWIN, Sam J., Jr. (U. S. Senator, N. C.); Morganton, N. C., Sept. 27, 1896.
EVANS, Dame Edith (actress); London, Eng., Feb. 8, 1888.
EVANS, Maurice (actor); Dorchester, Eng., June 3, 1901.
EWELL, Tom (Yewell Tompkins) (actor); Owensboro, Ky., Apr. 29, 1909.

FADIMAN, Clifton (literary critic); Brooklyn, N. Y., May 15, 1904.
FAIRBANKS, Douglas, Jr., (actor); New York City, Dec. 9, 1909.
FAIRLESS, Benjamin F. (industrialist); Pigeon Run, Ohio, May 3, 1890.
FALKENBURG, Jinx (Eugenia) (actress); Barcelona, Sp., Jan. 21, 1919.
FAROUK I (former King, Egypt); Cairo, Egy., Feb. 11, 1920.
FARRAR, Geraldine (soprano); Melrose, Mass., Feb. 28, 1882.
FARRELL, James T. (novelist); Chicago, Ill., Feb. 27, 1904.
FAST, Howard (novelist); New York City, Nov. 11, 1914.
FAUBUS, Orval E. (Governor, Ark.); Combs, Ark., Jan. 7, 1910.
FAULKNER, William (novelist); New Albany, Miss., Sept. 25, 1897.
FAURE, Edgar (French statesman); Béziers, Fr., Aug. 18, 1908.
FAY, Frank (actor); San Francisco, Calif., Nov. 17, 1897.
FAYE, Alice (Alice Leppert) (actress); New York City, May 5, 1915.
FEININGER, Lyonel (painter); New York City, July 17, 1871.
FELLER, Bobby (baseball player); Van Meter, Iowa, Nov. 3, 1918.
FERBER, Edna (novelist); Kalamazoo, Mich., Aug. 15, 1887.
FERNANDEL (Fernand Constantin) (actor); Marseilles, France, May 8, 1903.
FERRER, Jose (actor); Puerto Rico, 1909.
FERRER, Mel (actor); Eberon, N. J., Aug. 25, 1917.
FEUCHTWANGER, Lion (novelist); Munich, Ger., July 7, 1884.
FIEDLER, Arthur (orchestra conductor); Boston, Mass., Dec. 17, 1894.
FIELD, Betty (actress); Boston, Mass., Feb. 8, 1918.
FIELD, Marshall (newspaperman); Chicago, Ill., Sept. 28, 1893.
FIELD, Marshall, Jr. (newspaperman); New York City, June 15, 1916.
FIELDS, Gracie (actress); Rochdale, Eng., Jan. 9, 1898.
FISHER, Dorothy Canfield (novelist); Lawrence, Kans., Feb. 17, 1879.
FISHER, Eddie (singer); Philadelphia, Pa.
FISHER, Geoffrey Francis (Archbishop of Canterbury); Higham Rectory, Nuneaton, Eng., May 5, 1887.
FISHER, Ham (Hammond) (cartoonist); Wilkes-Barre, Pa.
FITZGERALD, Barry (William J. Shields) (actor); Dublin, Ire., Mar. 1888.
FITZGERALD, Ella (singer); Newport News, Va., Apr. 25, 1918.
FITZGERALD, Geraldine (actress); Dublin, Ire., Nov. 24, 1914.
FITZSIMMONS, Sunny Jim (horse trainer); Sheepshead Bay, N. Y., July 23, 1874.
FLAGSTAD, Kirsten (soprano); Hamar, Nor., July 12, 1895.
FLANDERS, Ralph E. (U. S. Senator, Vt.); Barnet, Vt., Sept. 28, 1880.
FLEMING, Rhonda (Marilyn Louis) (actress); Los Angeles, Calif., Aug. 10, 1923.
FLYNN, Errol (actor); Hobart, Tasmania, June 20, 1909.
FOCH, Nina (actress); Leyden, Neth., Apr. 20, 1924.
FOLSOM, James E. (Governor, Ala.); Coffee Co., Ala., Oct. 9, 1908.
FONDA, Henry (actor); Grand Island, Nebr., May 16, 1905.
FONTAINE, Joan (actress); Tokyo, Jap., Oct. 22, 1917.
FONTANNE, Lynn (actress); London, Eng., 1887.
FONTEYN, Margot (Margaret Hookham) (ballerina); Reigate, Eng., May 18, 1919.
FORD, Glenn (Gwyllyn Ford) (actor); Quebec, Can., May 1, 19??.
FORD, Henry, II (industrialist); Detroit, Mich., Sept. 4, 1917.
FORD, John (movie director); Cape Elizabeth, Maine, Feb. 1, 1895.
FORESTER, C. S. (Cecil Scott Forester) (novelist); Cairo, Egypt, Aug. 27, 1899.
FORSTER, E. M. (Edward M.) (novelist); England, 1879.
FORSYTHE, John (actor); Penns Grove, N. J., Jan. 29, 1918.
FOSS, Joe (Governor, S. Dak.); nr. Sioux Falls, S. Dak., Apr. 17, 1915.
FOWLER, Gene (biographer); Denver, Colo., 1890.
FRANCESCATTI, Zino (violinist); Marseille, Fr., Aug. 9, 1905.
FRANCO, Francisco (Chief of State, Spain); El Ferrol, Sp., Dec. 4, 1892.
FRANKEN, Rose (dramatist & novelist); Gainesville, Tex., 1898.
FRANKFURTER, Felix (U. S. jurist); Vienna, Aus., Nov. 15, 1882.

FRAWLEY, William (actor); Burlington, Iowa, Feb. 26, 1893.
FREAR, J. Allen, Jr. (U. S. Senator, Del.); nr. Rising Sun, Del., Mar. 7, 1903.
FREDERICK IX (King, Denmark); nr. Copenhagen, Den., Mar. 11, 1899.
FREEMAN, Orville (Governor, Minn.); Minneapolis, Minn., May 9, 1918.
FRICK, Ford C. (baseball executive); Wawaka, Ind., Dec. 19, 1894.
FRIML, Rudolf (composer); Prague, Czech., Dec. 7, 1884.
FRISCH, Frank F. (baseball player); New York City, Sept. 9, 1898.
FROMAN, Jane (singer); St. Louis, Mo., Nov. 10, 1911.
FROST, Robert (poet); San Francisco, Calif., Mar. 26, 1875.
FRY, Christopher (dramatist); Bristol, Eng., Dec. 18, 1907.
FULBRIGHT, James W. (U. S. Senator, Ark.); Sumner, Mo., Apr. 9, 1905.
FUNSTON, George Keith (financial executive); Waterloo, Iowa, Oct. 12, 1910.

GABIN, Jean (actor); Paris, Fr., May 17, 1904.
GABLE, Clark (actor); Cadiz, Ohio, Feb. 1, 1901.
GALLICO, Paul (author); New York City, July 26, 1897.
GALLI-CURCI, Amelita (soprano); Milan, It., Nov. 18, 1889.
GALLUP, George H. (public opinion statistician); Jefferson, Iowa, Nov. 18, 1901.
GANNETT, Frank E. (publisher); Bristol, N. Y., Sept. 15, 1876.
GANNETT, Lewis (literary critic); Rochester, N. Y., Oct. 3, 1891.
GARBO, Greta (Greta Gustafsson) (actress); Stockholm, Swed., Sept. 18, 1905.
GARDEN, Mary (soprano); Aberdeen, Scot., Feb. 20. 1877.
GARDINER, Reginald (actor); Wimbledon, Eng., Feb. 27, 1903.
GARDNER, Ava (actress); Smithfield, N. C.
GARDNER, Ed (Edward Poggenberg) (actor); Astoria, N. Y., June 29, 1905.
GARDNER, Erle Stanley (novelist); Malden, Mass., July 17, 1889.
GARGAN, William (actor); Brooklyn, N. Y., July 17, 1905.
GARLAND, Judy (Frances Gumm) (actress); Grand Rapids, Minn., June 10, 1922.
GARROWAY, Dave (comedian); Schnectady, N. Y., July 13, 1913.
GARSON, Greer (actress); County Down, Ire.
GARY, Raymond D. (Governor, Okla.); Madill, Okla., Jan. 21, 1907.
GAXTON, William (Arturo Caxiola) (actor); San Francisco, Calif., Dec. 2, 1893.
GAYNOR, Mitzi (actress); Chicago, Sept. 4.
GEDDES, Barbara Bel (actress); New York City, Oct. 31, 1922.
GEDDES, Norman Bel (stage designer); Adrian, Mich., Apr. 27, 1893
GEORGE, Grace (actress); New York City, Dec. 25, 1880.
GEORGE, Walter F. (U. S. Senator, Ga.); Preston, Ga., Jan. 29, 1878.
GERSHWIN, Ira (lyricist); New York City, Dec. 6, 1896.
GIELGUD, Sir John (actor); London, Eng., Apr. 14, 1904.
GIESEKING, Walter (pianist); Lyon, Fr., Nov. 5, 1895.
GIGLI, Beniamino (tenor); Rencanati, It., Mar. 20, 1890.
GILES, Warren (baseball executive); Tiskilwa, Ill., May 28, 1896.
GIMBEL, Bernard F. (merchant); Vincennes, Ind., Apr. 10, 1885.
GISH, Dorothy (actress); Massillon, Ohio, Mar. 11, 1898.
GISH, Lillian (actress); Springfield, Ohio, Oct. 14, 1896.
GLEASON, Jackie (actor); Brooklyn, N. Y., Feb. 26, 1916.
GLEASON, James (actor); New York City, May 23, 1886.
GOBEL, George (comedian); Chicago, Ill., May 20, 1920.
GODDARD, Paulette (actress); Great Neck, N. Y., June 3, 1911.
GODFREY, Arthur (entertainer); New York City, Aug. 31, 1903.
GOLDBERG, Rube (Reuben) (cartoonist); San Francisco, Calif., July 4, 1883.
GOLDMAN, Edwin Franko (composer & conductor); Louisville, Ky., Jan. 1, 1878.
GOLDWATER, Barry M. (U. S. Senator, Ariz); Phoenix, Ariz., Jan. 1, 1909.
GOLDWYN, Samuel (Samuel Goldfish) (movie producer); Warsaw, Pol., 1882.
GOLSCHMANN, Vladimir (orchestra conductor); Paris, Fr., Dec. 16, 1893.
GOODMAN, Benny (clarinetist); Chicago, Ill., May 30, 1909.
GOOSSENS, Eugene (orchestra conductor); London, Eng., May 26, 1893.
GORDON, Max (play producer); New York City, 1892.
GORDON, Ruth (actress); Wollaston, Mass., Oct. 30, 1896.
GORE, Albert (U. S. Senator, Tenn.); Granville, Tenn., Dec. 26, 1907.
GOSDEN, Freeman F. *See* Amos.
GOULD, Chester (cartoonist); Pawnee, Okla., 1900.
GOULD, Morton (composer); Richmond Hill, N. Y., Dec. 10, 1913.
GRABLE, Betty (actress); St. Louis, Mo., Dec. 18, 1916.
GRACE, Eugene G. (industrialist); Goshen, N. J., Aug. 27, 1896.
GRAHAM, Billy (William F.) (evangelist); Charlotte, N. C., Nov. 7, 1918.
GRAHAM, Martha (choreographer); Pittsburgh, Pa.
GRAHAME, Gloria (Gloria Grahame Hollward) (actress); Los Angeles, Calif., Nov. 28, 1925.
GRANGE, Red (Harold) (football player); Forksville, Pa., June 13, 1904.
GRANGER, Stewart (James Stewart) (actor); May 6, 1913.
GRANT, Cary (Archibald A. Leach) (actor); Bristol, Eng., Jan. 18, 1904.
GRAVES, Robert (poet & novelist); London, Eng., July 26, 1895.
GRAY, Harold (cartoonist); Kankakee, Ill., Jan. 20, 1894.
GRAYSON, Kathryn (Zelma Hedrick) (actress); Winston-Salem, N. C.

GRECO, José (dancer); Montorio nei Frentani, It., Dec. 23, 1918.
GREEN, Paul (dramatist); Lillington, N. C., Mar. 17, 1894.
GREEN, Theodore F. (U. S. Senator, R. I.); Providence, R. I., Oct. 2, 1867.
GREENBERG, Hank (baseball executive); New York City, Jan. 1, 1911.
GREENE, Graham (novelist); Berkhamstead, Eng., Oct. 2, 1904.
GRIFFIN, Samuel Marvin (Governor, Ga.); Bainbridge, Ga., Sept. 4, 1907.
GRIFFITH, Clark C. (baseball executive); Clear Creek, Mo., Nov. 20, 1869.
GRIMM, Charley (baseball manager); St. Louis, Mo., Aug. 28, 1898.
GRISWOLD, A. Whitney (educator); Morristown, N. J., Oct. 27, 1906.
GROFÉ, Ferde (composer); New York City, Mar. 27, 1892.
GROMYKO, Andrei A. (Soviet statesman); Starye Gromyki, Rus., July 5, 1909.
GROPIUS, Walter (architect); Berlin, Ger., May 18, 1883.
GROSZ, George (painter); Berlin, Ger., July 26, 1893.
GROVE, Lefty (Robert M.) (baseball player); Lonaconing, Md., Mar. 6, 1900.
GRUENTHER, Gen. Alfred M. (Supreme Allied Commander, Eur.); Platte Center, Nebr., Mar. 3, 1899.
GUEST, Edgar (poet); Birmingham, Eng., Aug. 20, 1881.
GUINNESS, Alec (actor); Marylebone, London, Eng., Apr. 2, 1914.
GUITRY, Sacha (Alexandre) (actor & movie director); St. Petersburg, Rus., Feb. 21, 1885.
GUNTHER, John (journalist & author); Chicago, Ill., Aug. 30, 1901.
GUSTAVUS VI (King, Sweden); Stockholm, Swed., Nov. 11, 1882.
GWENN, Edmund (actor); London, Eng., Sept. 26, 1877.

HAAKON VII (King, Norway); Denmark, Aug. 3, 1872.
HACKETT, Francis (critic & novelist); Kilkenny, Ire., Jan. 21, 1883.
HAGEN, Uta (actress); Gottingen, Ger., June 12, 1919.
HAGEN, Walter (golfer); Rochester, N. Y., Dec. 21, 1892.
HAGERTY, James C. (Pres. Press Secy., U. S.); Plattsburg, N. Y., May 9, 1909.
HAILE SELASSIE I (Emperor, Ethiopia); Ethiopia, July 17, 1891.
HALL, Fred (Governor, Kans.); Dodge City, Kans., July 24, 1916.
HAMMARSKJÖLD, Dag (Sec. Gen., U. N.); Jonkoping, Swed., July 29, 1905.
HAMMERSTEIN, Oscar, II (librettist); New York City, July 12, 1895.
HAMMETT, Dashiell (novelist); St. Marys Co., Md., May 27, 1894.
HAND, Learned (U. S. jurist); Albany, N. Y., Jan. 27, 1872.
HANDY, William C. (blues composer); Florence, Ala., Nov. 16, 1873.
HANSON, Howard (composer); Wahoo, Nebr., Oct. 28, 1896.
HARDWICKE, Sir Cedric (actor); Lye, Eng., Feb. 19, 1893.
HARRIDGE, Will (baseball executive); Chicago, Ill., Oct. 16, 1886.
HARRIMAN, W. Averell (Governor, N. Y.); Nov. 15, 1891.
HARRIS, Bucky (Stanley R.) (baseball manager); Port Jervis, N. Y., Nov. 8, 1896.
HARRIS, Jed (stage producer); Vienna, Aus., Feb. 25, 1900.
HARRIS, Julie (actress); Grosse Pointe, Mich., Dec. 2, 1925.
HARRIS, Phil (band leader); Linton, Ind., June 24, 1906.
HARRIS, Roy (composer); Lincoln Co., Okla., Feb. 12, 1898.
HARRISON, Rex (actor); Huyton, Eng., Mar. 5, 1908.
HART, Moss (dramatist); New York City, Oct. 24, 1904.
HATOYAMA, Ichiro (Japanese statesman); Tokyo, Jap., Jan. 1, 1883.
HAVOC, June (June Hovick) (actress); Seattle, Wash.
HAYDEN, Carl (U. S. Senator, Ariz.); Hayden's Ferry, Ariz., Oct. 2, 1877.
HAYES, Alfred (novelist); London, 1911.
HAYES, Helen (Helen Brown) (actress); Washington, D. C., Oct. 10, 1900.
HAYES, Roland (tenor); Curryville, Ga., June 3, 1887.
HAYMES, Dick (singer); Argentina.
HAYWARD, Susan (Edythe Marrener) (actress); Brooklyn, N. Y., June 30, 1919.
HAYWORTH, Rita (Margarita Cansino) (actress); New York City, Oct. 17, 1918.
HEARST, David W. (publisher); New York City, Dec. 2, 1915.
HEARST, Randolph A. (publisher); New York City, Dec. 2, 1915.
HEARST, William Randolph, Jr. (publisher); New York City, Jan. 27, 1908.
HEATTER, Gabriel (radio commentator); New York City, 1890.
HECHT, Ben (novelist & dramatist); New York City, Feb. 28, 1894.
HEFLIN, Van (actor); Walters, Okla., Dec. 13, 1910.
HEIFETZ, Jascha (violinist); Vilna, Rus., Feb. 2, 1901.
HELLMAN, Lillian (dramatist); New Orleans, La., June 20, 1905.
HEMINGWAY, Ernest (novelist); Oak Park, Ill., July 21, 1898.
HENDERSON, Skitch (pianist); Birmingham, Eng., Jan. 27, 1918.
HENIE, Sonja (skater); Oslo, Nor., Apr. 8, 1913.
HENNINGS, Thomas C., Jr. (U. S. Senator, Mo.); St. Louis, Mo., June 25, 1903.
HENREID, Paul (actor); Trieste, It., Jan. 10, 1908.
HEPBURN, Audrey (actress); Brussels, Belg., May 4, 1929.
HEPBURN, Katharine (actress); Hartford, Conn., 1909.
HERBLOCK (Herbert L. Block) (cartoonist); Chicago, Ill., Oct. 13, 1909.
HERMAN, Woody (band leader); Milwaukee, Wis., May 16, 1913.
HERSEY, John R. (novelist); Tientsin, China, June 17, 1914.

ERSHEY, Lewis B. (U. S. major general); Steuben Co., Ind., Sept. 12, 1893.
ERSHOLT, Jean (actor); Copenhagen, Den., July 12, 1886.
ERTER, Christian A. (Governor, Mass.); Paris, Fr. (of American parents), Mar. 28, 1895.
ESS, Dame Myra (pianist); London, Eng., Feb. 25, 1890.
ESTON, Charlton (actor); Evanston, Ill., Oct. 4, 1924.
ICKENLOOPER, Bourke B. (U. S. Senator, Iowa); Blockton, Iowa, July 21, 1896.
ILDEGARDE, (Hildegarde Loretta Sell) (entertainer); Adell, Wis., Feb. 1, 1906.
ILL, Lister (U. S. Senator, Ala.); Montgomery, Ala., Dec. 29, 1894.
ILLER, Wendy (actress); Branhall, Eng., Aug. 15, 1912.
ILLIARD, Harriet (Peggy Lou Snyder) (actress & singer); Des Moines, Iowa.
INDEMITH, Paul (composer); Hanau, Ger., Nov. 16, 1895.
IROHITO, (Emperor, Japan); Japan, Apr. 29, 1901.
IRSCH, Max (horse trainer); Fredericksburg, Tex., July 12, 1880.
ITCHCOCK, Alfred J. (movie director); England, Aug. 13, 1899.
O CHI-MINH (Viêt-Nam statesman); Annam, Indo-China, c. 1891.
OBBY, Oveta Culp (former Secy. of Welfare, U. S.); Killeen, Tex., Jan. 19, 1905.
OBSON, Laura Z. (Laura K Zametkin) (novelist); New York City.
OBSON, Valerie (actress); Larne, N. Ire., 1918.
ODGES, Luther H. (Governor, N. C.); Pittsylvania Co., Va., Mar. 9, 1898.
ODIAK John (actor); Pittsburgh, Pa., Apr. 16.
OEGH, Leo A. (Governor, Iowa); Audubon Co., Iowa, Mar. 30, 1908.
OFMANN, Josef (pianist); Cracow, Pol., Jan. 20, 1876.
OGAN, Ben (golfer); Dublin, Tex., Aug. 13, 1912.
OLDEN, William (William Franklin Beedle, Jr.) (actor); O'Fallon, Ill., Apr. 17, 1918.
OLLAND, Spessard L. (U. S. Senator, Fla.); Bartow, Fla., July 10, 1892.
OLLIDAY, Judy (actress); New York City, June 21, 1923.
OLM, Celeste (actress & singer); New York City, Apr. 29, 1919.
OMOLKA, Oscar (actor); Vienna, Aus., 1901.
ONNEGGER, Arthur (composer); Le Havre, Fr., Mar. 10, 1892.
OOK, Sidney (philosopher); New York City; Dec. 20, 1902.
OOVER, Herbert C. (U. S. statesman); West Branch, Iowa, Aug. 10, 1874.
OOVER, Herbert, Jr. (Under Secy. of State, U. S.); London, Eng., Aug. 4, 1903.
OOVER, J. Edgar (FBI Director, U. S.); Washington, D. C., Jan. 1, 1895.
OPE, Bob (comedian); London, Eng., May 29, 1903.
OPKINS, Miriam (actress); Bainbridge, Ga., Oct. 18, 1902.
OPPE, Willie (billiards player); Cornwall, N. Y., Oct. 11, 1887.

HOPPER, Hedda (columnist); Hollidaysburg, Pa., June 2, 1890.
HORNE, Lena (singer) Brooklyn, N. Y., 1918.
HORNSBY, Rogers (baseball manager); Winters, Tex., Apr. 27, 1896.
HOROWITZ, Vladimir (pianist); Kiev, Rus., Oct. 1, 1904.
HOUSMAN, Laurence (dramatist & novelist); Bromsgrove, Eng., July 18, 1865.
HOWARD, Roy W. (publisher); Gano, Ohio, Jan. 1, 1883.
HRUSKA, Roman L. (U. S. Senator, Nebr.); David City, Nebr., Aug. 16, 1904.
HUBBELL, Carl (baseball executive); Carthage, Mo., June 22, 1903.
HUDSON, Rock (actor); Winnetka, Ill., Nov. 17, 1925.
HUGHES, Langston (poet); Joplin, Mo., Feb. 1, 1902.
HULL, Henry (actor); Louisville, Ky., Oct. 3, 1890.
HULL, Josephine (actress); Newtonville, Mass., Jan. 3, 1886.
HUMPHREY, George M. (Secy. of Treasury, U. S.); Sheboygan, Mich., Mar. 8, 1890.
HUMPHREY, Hubert H. (U. S. Senator, Minn.); Wallace, S. Dak., May 27, 1911.
HUNTER, Kim (Janet Cole) (actress); Detroit, Mich., Nov. 12, 1922.
HUSSEY, Ruth (actress); Providence, R. I.
HUSTON, John (movie director); Nevada, Mo., Aug. 5, 1906.
HUTCHINS, Robert M. (educator); Brooklyn, N. Y., Jan. 17, 1899.
HUTTON, Barbara (heiress); New York City, Nov. 14, 1912.
HUTTON, Betty (Betty Thornberg) (singer); Battle Creek, Mich., Feb. 26, 1921.
HUXLEY, Aldous (novelist); Godalming, Eng., July 26, 1894.
HUXLEY, Julian S. (biologist); England, June 22, 1887.

IBERT, Jacques (composer); Paris, Fr., Aug. 15, 1890.
INGE, William (dramatist); Independence, Kans., May 3, 1913.
IRELAND, John (actor); Vancouver, B. C., Can., Jan. 30, 1915.
ISHERWOOD, Christopher (novelist); Disley, Cheshire, Eng., Aug. 26, 1904.
ITURBI, José (pianist); Valencia, Sp., Nov. 28, 1895.
IVES, Burl (folksinger); Hunt, Ill., June 14, 1909.
IVES, Irving M. (U. S. Senator, N. Y.); Bainbridge, N. Y., Jan. 24, 1896.

JACKSON, Henry M. (U. S. Senator, Wash.); Everett, Wash., May 31, 1912.
JACOBS, Hirsch (horse trainer); New York City, Apr. 8, 1904.
JAFFE, Sam (actor); New York City, Mar. 8, 1898.
JAGGER, Dean (actor); Lima, Ohio, Nov. 7, 1903.
JAMES, Harry (trumpeter); Albany, Ga., Mar. 15, 1916.
JAMESON, Margaret Storm (novelist); Whitby, Eng., 1897.
JANIS, Elsie (Elsie Bierbower) (actress); Columbus, Ohio, Mar. 16, 1889.

JEANMAIRE, Renée (dancer & actress); Paris, Fr., Apr. 29, 1924.
JEBB, Sir Gladwyn (British statesman); England, Apr. 25, 1900.
JEFFERS, Robinson (poet); Pittsburgh, Pa., Jan. 10, 1887.
JENNER, William E. (U. S. Senator, Ind.); Marengo, Ind., July 21, 1908.
JESSEL, George (comedian); New York City, Apr. 3, 1898.
JESSUP, Philip C. (U. S. statesman); New York City, Jan. 5, 1897.
JOHN, Augustus (painter); Tenby, Wales, Jan. 4, 1879.
JOHNS, Glynis (actress); Durban, So. Af., Oct. 5, 1923.
JOHNSON, Celia (actress); Richmond, Eng., Dec. 18, 1908.
JOHNSON, Chick (Harold) (comedian); Chicago, Ill., Mar. 5, 1895.
JOHNSON, Edwin C. (Governor, Colo.); Scandia, Kans., Jan. 1, 1884.
JOHNSON, Joseph B. (Governor, Vt.); Helsingborg, Swed., Aug. 29, 1893.
JOHNSON, Lyndon B. (U. S. Senator, Tex.); nr. Johnson City, Tex., Aug. 27, 1908.
JOHNSON, Van (actor); Newport, R. I., Aug. 20, 1916.
JOHNSTON, Eric A. (movie executive); Washington, D. C., Dec. 21, 1896.
JOHNSTON, Olin D. (U. S. Senator, S. C.); nr. Honea Path, S. C., Nov. 18, 1896.
JOLIOT-CURIE, Frédéric (physicist); Paris, Fr., Mar. 19, 1900.
JOLIOT-CURIE, Irène (physicist); France, Sept. 12, 1897.
JONES, Bobby (golfer); Atlanta, Ga., Mar. 17, 1902.
JONES, James (novelist); Robinson, Ill., Nov. 6, 1921.
JONES, Jennifer (Phyllis Isley) (actress); Tulsa, Okla., Mar. 2, 1919.
JORDAN, James. *See* McGee.
JORDAN, Marian. *See* McGee.
JORY, Victor (actor); Dawson, Can., Nov. 23, 1902.
JOSEPHSON, Matthew (critic & biographer); Brooklyn, N. Y., Feb. 15, 1899.
JOURDAN, Louis (actor); Marseilles, Fr., June 18, 1921.
JULIANA (Queen, Netherlands); The Hague, Neth., Apr. 30, 1909.
JUNG, Carl G. (psychiatrist); Basel, Switz., July 26, 1875.

KABALEVSKY, Dmitri (composer); Petrograd, Rus., Dec. 30, 1904.
KAISER, Henry J. (industrialist); Sprout Brook, N. Y., May 9, 1882.
KALTENBORN, Hans V. (radio commentator); Milwaukee, Wis., July 9, 1878.
KANIN, Garson (dramatist & director); Rochester, N. Y., Nov. 24, 1912.
KANTOR, MacKinlay (novelist); Webster City, Iowa, Feb. 4, 1904.
KARLOFF, Boris (William Henry Pratt) (actor); Dulwich, Eng., Nov. 23, 1887.
KAUFFMANN, Samuel H. (publisher); Washington, D. C., Feb. 24, 1898.
KAUFMAN, George S. (dramatist); Pittsburgh, Pa., Nov. 16, 1889.
KAYE, Danny (David Daniel Kominski) (comedian); Brooklyn, N. Y., Jan. 18, 1913.
KAYE, Nora (Nora Koreff) (ballerina); New York City, 1920.
KAYE, Sammy (band leader); Cleveland, Ohio, Mar. 13, 1910.
KAZAN, Elia (movie & stage director); Istanbul, Turk., Sept. 7, 1909.
KEATON, Buster (comedian); Piqua, Kans., Oct. 4, 1896.
KEEL, Howard (singer & actor); Gillespie, Ill.
KEFAUVER, Estes (U. S. Senator, Tenn.); Madisonville, Tenn., July 26, 1903.
KELLAND, Clarence Budington (novelist); Portland, Mich., July 11, 1881.
KELLER, Helen (author & social worker); Tuscumbia, Ala., June 27, 1880.
KELLY, Emmett (circus clown); Sedan, Kans., 1898.
KELLY, Gene (actor); Pittsburgh, Pa., Aug. 23, 1912.
KELLY, Grace (actress); Philadelphia, Pa., Nov. 12, 1929.
KELLY, Walt (cartoonist); Philadelphia, Pa., 1914.
KENNEDY, Arthur (actor); Worcester, Mass., Feb. 17, 1914.
KENNEDY, John F. (U. S. Senator, Mass.); Brookline, Mass., May 29, 1917.
KENNEDY, Margaret (novelist); London, Eng., 1896.
KENNON, Robert F. (Governor, La.); Minden, La., Aug. 21, 1902.
KENT, Rockwell (painter); Tarrytown Heights, N. Y., June 21, 1882.
KERR, Deborah (actress); Helensburgh, Scot., Sept. 30, 1921.
KERR, Robert S. (U. S. Senator, Okla.); Ada, Okla., Sept. 11, 1896.
KETTERING, Charles F. (engineer); nr. Loudonville, Ohio, Aug. 29, 1876.
KEYES, Frances Parkinson (novelist); Univ. of Va., July 21, 1885.
KHACHATURIAN, Aram (composer); Tiflis, Rus., June 6, 1903.
KHRUSCHEV, Nikita S. (Soviet statesman); Kursk, Rus., Apr. 16, 1894.
KIEPURA, Jan (tenor); Sosnowiec, Pol., May 16, 1902.
KIERAN, John (author); New York City, Aug. 2, 1892.
KILGALLEN, Dorothy (columnist); Chicago, Ill., July 3, 1913.
KILGORE, Harley M. (U. S. Senator, W. Va.); Brown, W. Va., Jan. 11, 1893.
KILPATRICK, John Reed (sports executive); New York City, June 15, 1889.
KINER Ralph (baseball player); Santa Rita, N. Mex., Oct. 27, 1922.
KING, Dennis (actor); Coventry, Eng., Nov. 2, 1897.
KING, Henry (movie director); Christianburg, Va., Jan. 24, 1896.
KINGSLEY, Sidney (Sidney Kirschner) (dramatist); New York City, Oct. 18, 1906.
KINSEY, Alfred C. (zoologist & sexologist); Hoboken, N. J., June 23, 1894.
KIPNIS, Alexander (basso); Ukraine, Feb. 1, 1896.
KIRK, Lisa (singer); Charleroi, Pa.
KIRKPATRICK, Ralph (harpsichordist); Leominster, Mass., June 10, 1911.

KIRSTEN, Dorothy (soprano); Montclair, N. J., July 6, 1919.
KITT, Eartha (singer & actress); North, S. C., Jan. 26, 1928.
KLEMPERER, Otto (orchestra conductor); Breslau, Ger., 1885.
KNIGHT, Goodwin J. (Governor, Calif.); Provo, Utah, Dec. 9, 1896.
KNIGHT, John S. (publisher); Bluefield, W. Va., Oct. 26, 1894.
KNOWLAND, William F. (U. S. Senator, Calif.); Alameda, Calif., June 26, 1908.
KODÁLY, Zoltán (composer); Kecskemét, Hung., Dec. 16, 1882.
KOESTLER, Arthur (novelist); Budapest, Hung., Sept. 5, 1905.
KOHLER, Walter J. (Governor, Wis.); Sheboygan, Wis., Apr. 4, 1904.
KOKOSCHKA, Oskar (painter); Pöchlarn, Aus., Mar. 1, 1886.
KORDA, Sir Alexander (movie producer); Turkeve, Hung., Sept. 16, 1893.
KOSTELANETZ, Andre (orchestra conductor); Petrograd, Rus., Dec. 22, 1901.
KRAMER, John A. (tennis player); Las Vegas, Nev., Aug. 1, 1921.
KRAMER, Stanley E. (movie producer); New York City, Sept. 29, 1913.
KREISLER, Fritz (violinist); Vienna, Aus., Feb. 2, 1875.
KROCK, Arthur (journalist); Nov. 16, 1886.
KROLL, Leon (painter); New York City, Dec. 6, 1884.
KRUGER, Otto (actor); Toledo, Ohio, Sept. 6, 1885.
KRUPA, Gene (drummer & band leader); Chicago, Ill., Jan. 15, 1909.
KUBELIK, Rafael (orchestra conductor); Bychory, Czech., June 29, 1914.
KUCHEL, Thomas H. (U. S. Senator, Calif.); Anaheim, Calif., Aug. 15, 1910.
KULLMAN, Charles (tenor); New Haven, Conn., Jan. 13, 1903.
KURTZ, Efrem (orchestra conductor); Petrograd, Rus., Nov. 7, 1900.

LADD, Alan (actor); Hot Springs, Ark., Sept. 3, 1913.
LA FARGE, Christopher (poet & novelist); New York City, Dec. 10, 1897.
LA FARGE, Oliver (author & anthropologist); New York City, Dec. 19, 1901.
LAHR, Bert (Irving Lahrheim) (comedian); New York City, Aug. 13, 1895.
LAINE, Frankie (singer); Chicago, Ill., Mar. 30, 1913.
LAKE, Veronica (Constance Keane) (actress); Lake Placid, N. Y., Nov. 14, 1919.
LAMARR, Hedy (actress); Vienna, Aus.
LAMAS, Fernando (actor); Buenos Aires, Arg., Jan. 9.
LAMBEAU, Curly (E. L.) (football coach); Green Bay, Wis., Apr. 9, 1898.
LAMOUR, Dorothy (actress); New Orleans, La., Dec. 10, 1914.
LANCASTER, Burt (actor); New York City, Nov. 2, 1913.
LANCHESTER, Elsa (Elsa Sullivan) (actress); London, Eng., Oct. 28, 1902.
LANDOWSKA, Wanda (harpsichordist); Warsaw, Pol., July 5, 1877.
LANDY, John (mile runner); Australia, Apr. 4, 1930.
LANG, Fritz (movie director); Vienna, Aus., Dec. 5, 1890.
LANG, Harold (dancer & actor); San Francisco, Calif.
LANGER, William (U. S. Senator, N. Dak.); Everest, N. Dak., Sept. 30, 1886.
LANGFORD, Sam (boxer); Weymouth, Nova Scotia, Mar. 4, 1886.
LANGLIE Arthur B. (Governor, Wash.); Lanesboro, Minn., July 25, 1900.
LANIEL, Joseph (French statesman); Normandy, Fr., 1890.
LANZA, Mario (Alfredo Arnold Cocozza) (tenor); Philadelphia, Pa., Jan. 31, 1921.
LAUGHTON, Charles (actor); Scarborough, Eng., July 1, 1899.
LAUSCHE, Frank J. (Governor, Ohio); Cleveland, Ohio, Nov. 14, 1895.
LAWFORD, Peter (actor); London, Eng., Sept. 7, 1923.
LAWRENCE, David (journalist); Philadelphia, Pa., Dec. 25, 1888.
LAWRENCE, Marjorie (soprano); Deans Marsh, Austr., Feb. 17, 1909.
LEADER, George M. (Governor, Pa.); nr. York, Pa., Jan. 17, 1918.
LEAF, Munro (children's writer); Hamilton, Md., Dec. 4, 1905.
LEAHY, Frank (football coach); O'Neill, Nebr., Aug. 21, 1908.
LE CORBUSIER (Charles-Édouard Jeanneret) (architect); La Chaux De Fonds, Switz., Oct. 6, 1887.
LEE, J. Bracken (Governor, Utah); Price, Utah, Jan. 7, 1899.
LEE, Gypsy Rose (Rose Hovik) (entertainer); Seattle, Wash., Feb. 9, 1914.
LEE, Peggy (singer); Jamestown, N. Dak., 1921.
LE GALLIENNE, Eva (actress & director); London, Eng., Jan. 11, 1899.
LEHMAN, Herbert H. (U. S. Sentaor, N. Y.); New York City, Mar. 28, 1878.
LEHMANN, Lotte (soprano); Perleberg, Ger., July 2, 1885.
LEIGH, Janet (Jeanette Morrison) (actress); Merced, Calif., July 6, 1927.
LEIGH, Vivien (Vivian Hartley) (actress); Darjeeling, India, Nov. 5, 1913.
LEINSDORF, Erich (orchestra conductor); Vienna, Aus., Feb. 4, 1912.
LERNER, Max (social writer); Minsk, Rus., Dec. 20, 1902.
LEROY, Mervyn (movie producer & director); San Francisco, Calif., Oct. 15, 1900.
LEVANT, Oscar (pianist); Pittsburgh, Pa., Dec. 27, 1906.
LEVENE, Sam (actor); New York City, 1907.
LEVI, Carlo (novelist); Turin, It., 1902.
LEWIS, Fulton, Jr. (columnist); Washington, D. C., Apr. 30, 1903.
LEWIS, Jerry (comedian); Newark, N. J., Mar. 16, 1926.
LEWIS, Joe E. (comedian); New York City.
LEWIS, John L. (labor leader); Lucas, Iowa, Feb. 12, 1880.
LIBERACE (Wladziu Liberace) (pianist); West Milwaukee, Wis., May, 1920.
LIE, Trygve (former U. N. Secretary General); Oslo, Nor., July 16, 1896.

LILLIE, Beatrice (actress); Toronto, Can., May 29, 1898.

LILLIENTHAL, David E. (U. S. statesman); Morton, Ill., July 8, 1899.

LIN Yutang (philosopher); Changchow, China, Oct. 10, 1895.

LINDBERGH, Charles A. (aviator); Detroit, Mich., Feb. 4, 1902.

LINDSAY, Howard (dramatist); Waterford, N. Y., Mar. 29, 1889.

LIPCHITZ, Jacques (sculptor); Druskieniki, Lith., Aug. 22, 1891.

LIPPMANN, Walter (author & journalist); New York City, Sept. 23, 1889.

LITTLE, Lou (football coach); Leominster, Mass., Dec. 6, 1893.

LIVESY, Roger (actor); Barry, Wales, June 25, 1906.

LLEWELLYN, Richard (novelist); St. David's, Wales.

LLOYD, Harold (comedian); Burchard, Nebr., Apr. 20, 1894.

LOCKHART, Gene (actor); London, Can., July 25, 1892.

LOCKWOOD, Margaret (actress); Karachi, India, 1916.

LODGE, Henry Cabot, Jr. (U. N. Delegate, U. S.); Nahant, Mass., July 5, 1902.

LOESSER, Frank (song writer); New York City, June 29, 1910.

LOGAN, Joshua (director & dramatist); Texarkana, Tex., Oct. 5, 1908.

LOMBARDO, Guy (band leader); London, Can., June 19, 1902.

LONG, Russell B. (U. S. Senator, La.); Shreveport, La., Nov. 3, 1918.

LOOS, Anita (novelist); Sisson, Calif., Apr. 26, 1893.

LOPEZ, Al (baseball manager); Tampa, Fla., Aug. 20, 1908.

LOPEZ, Vincent (band leader); Brooklyn, N. Y., Dec. 10, 1898.

LORRE, Peter (actor); Rosenberg, Hung., June 26, 1904.

LOUIS, Joe (Joe Louis Barrow) (boxer); Lexington, Ala., May 13, 1914.

LOVEJOY, Frank (actor); New York City, Mar. 28.

LOW, David (cartoonist); Dunedin, N. Z., Apr. 7, 1891.

LOWELL, Robert (Traill Spence, Jr.) (poet); Boston, Mass., Mar. 1, 1917.

LOY, Myrna (Myrna Williams) (actress); near Helena, Mont., Aug. 2, 1905.

LUCE, Clare Booth (U. S. diplomat); New York City, Apr. 10, 1903.

LUCE, Henry R. (publisher); Shantung, China, Apr. 3, 1898.

LUGOSI, Bela (Bela Lugosi Blasko) (actor); Lugo, Hung., Oct. 20, 1888.

LUKAS, Paul (actor); Budapest, Hung., May 26, 1895.

LUND, John (actor); Rochester, N. Y., Feb. 6, 1914.

LUNT, Alfred (actor); Milwaukee, Wis., Aug. 19, 1893.

LUPINO, Ida (actress); London, Eng., Feb. 4, 1918.

LYNN, Diana (Dolly Loehr) (actress); Los Angeles, Calif., Oct. 7, 1926.

MacARTHUR, Charles (dramatist); Scranton, Pa., Nov. 5, 1895.

MacARTHUR, Douglas (U. S. general); Little Rock Barracks, Ark., Jan. 26, 1880.

MacDONALD, Jeanette (soprano); Philadelphia, Pa., June 18, 1907.

MacFADDEN, Bernarr (physical culturist); nr. Mill Springs, Mo., Aug. 16, 1868.

MacGRATH, Leueen (actress & dramatist); London, Eng., July 3, 1914.

MACK, Connie (Cornelius McGillicuddy) (baseball executive); East Brookfield, Mass., Dec. 23, 1862.

MacLEISH, Archibald (poet); Glencoe, Ill., May 7, 1892.

MAGNANI, Anna (actress); Alexandria, Egy., 1910.

MAGNUSON, Warren G. (U. S. Senator, Wash.); Moorhead, Minn., Apr. 12, 1905.

MAGSAYSAY, Ramón (President, Philippines); Iba, Luzon, Aug. 31, 1907.

MAILER, Norman (novelist); Long Branch, N. J., Jan. 31, 1923.

MALAN, Daniel F. (So. African statesman); Riebeek West. So. Af., May 22, 1874.

MALENKOV, Georgi M. (Soviet statesman); Orienburg, Rus., Jan. 8, 1902.

MALIK, Yakob (Soviet diplomat); Kharkov, Ukr., 1906.

MALONE, George W. (U. S. Senator, Nev.); Fredonia, Kans., Aug. 7, 1890.

MALRAUX, André (novelist); Paris, Fr., Nov. 3, 1895.

MANGANO, Silvana (actress); Rome, It.

MANGRUM, Lloyd (golfer); Dallas, Tex., Aug. 1, 1914.

MANKIEWICZ, Joseph L. (movie director); Wilkes-Barre, Pa., Feb. 11, 1909.

MANSFIELD, Mike (U. S. Senator, Mont.); New York City, Mar. 16, 1903.

MANTLE, Mickey (baseball player); Spavinaw, Okla., Oct. 20, 1931.

MAO Tse-tung (Chmn. of People's Counc., Comm. China); Shao Shan, China, 1893.

MARBLE, Alice I. (tennis player); Plumas Co., Calif., Sept. 28, 1913.

MARCH, Fredric (Frederick Bickel) (actor); Racine, Wis., Aug. 31, 1897.

MARCIANO, Rocky (Rocco Francis Marchegiano) (boxer); Brockton, Mass., Sept. 1, 1924.

MARGO (Maria Boldao y Castilla) (actress); Mexico City, Mex., May 10, 1918.

MARION, Marty (baseball manager); Richburg, S. C., Dec. 1, 1917.

MARITAIN, Jacques (philosopher); Paris, Fr., Nov. 18, 1882.

MARKOVA, Alicia (ballerina); London, Eng., Dec. 1, 1910.

MARLAND, William C. (Governor, W. Va.); Johnson City, Ill., Mar. 26, 1918.

MARQUAND, John P. (novelist); Wilmington, Del., Nov. 10, 1893.

MARSH, Ngaio (novelist); Christchurch, N. Z., Apr. 23, 1899.

MARSHALL, Catherine (author); Johnson City, Tenn., Sept. 27, 1914.

MARSHALL, George C. (U. S. general); Uniontown, Pa., Dec. 31, 1880.

MARSHALL, Herbert (actor); London, Eng., May 23, 1890.

MARTIN, Dean (comedian); Steubenville, Ohio, June 7, 1917.

MARTIN, Edward (U. S. Senator, Pa.); Ten Mile, Pa., Sept. 18, 1879.
MARTIN, Joseph W., Jr. (U. S. Representative, Mass.); No. Attleboro, Mass., Nov. 3, 1884.
MARTIN, Mary (actress); Weatherford, Tex., Dec. 1, 1914.
MARTIN, Thomas E. (U. S. Senator, Iowa); Melrose, Iowa, Jan. 18, 1893.
MARTIN, Tony (actor & singer); San Francisco, Calif., Dec. 25, 1914.
MARTIN, William McChesney, Jr. (financial executive); St. Louis, Mo., Dec. 17, 1906.
MARTINELLI, Giovanni (tenor); Montagnana, It., Oct. 22, 1885.
MARTINU, Bohuslav (composer); Policka, Czech., Dec. 8, 1890.
MARX, Chico (Leonard) (comedian); New York City, Mar. 22, 1891.
MARX, Groucho (Julius) (comedian); New York City, Oct. 2, 1895.
MARX, Harpo (Arthur) (comedian); New York City, Nov. 23, 1893.
MASEFIELD, John (poet); Ledbury, Eng., June 1, 1878.
MASON, F. van Wyck (novelist); Boston, Mass., Nov. 11, 1901.
MASON, James (actor); Huddersfield, Eng., May 15, 1909.
MASSEY, Ilona (Ilona Hajmassy) (actress); Hungary, 1910.
MASSEY, Raymond (actor); Toronto, Can., Aug. 30, 1896.
MASSINE, Léonide (choreographer); Moscow, Rus., Aug. 9, 1896.
MATHIAS, Bob (athlete); Tulare, Calif., Nov. 17, 1930.
MATURE, Victor (actor); Louisville, Ky., Jan. 19, 1916.
MAUGHAM, William Somerset (novelist); Paris, Fr., Jan. 25, 1874.
MAULDIN, William H. (cartoonist); Mountain Park, N. Mex., Oct. 29, 1921.
MAUROIS, André (Emile Herzog) (novelist); Elbeuf, Fr., July 26, 1885.
MAXWELL, Elsa (columnist); Keokuk, Iowa, May 24, 1883.
MAYER, Louis B. (movie producer); Minsk, Rus., July 4, 1885.
MAYNOR, Dorothy (soprano); Norfolk, Va., Sept. 3, 1910.
MAYO, Virginia (Virginia Jones) (actress); St. Louis, Mo., Nov. 30, 1920.
MAYS, Willie (baseball player); Fairfield, Ala., May 6, 1931.
McBRIDE, Mary Margaret (author); Paris, Mo., Nov. 16, 1899.
McCAMBRIDGE, Mercedes (actress); Joliet, Ill., Mar. 17, 1918.
McCAREY, Leo (movie director); Los Angeles, Calif., Oct. 3, 1898.
McCARTHY, Joe (baseball manager); Philadelphia, Pa., Apr. 21, 1887.
McCARTHY, Joseph R. (U. S. Senator, Wis.); Grand Chute, Wis., Nov. 14, 1909.
McCLELLAN, John L. (U. S. Senator, Ark.); Sheridan, Ark., Feb. 25, 1896.
McCLOY, John J. (lawyer); Philadelphia, Pa., Mar. 31, 1895.
McCREA, Joel (actor); Los Angeles, Calif., Nov. 5, 1906.
McCULLERS, Carson (author); Columbus, Ga., Feb. 19, 1917.
McDONALD, David J. (labor leader); Pittsburgh, Pa., Nov. 22, 1902.
McFARLAND, Ernest W. (Governor, Ariz.); Earlsboro, Okla., Oct. 9, 1894.
McGEE, Fibber (James Jordan) (actor); Peoria, Ill., Nov. 16, 1896.
McGEE, Molly (Marian Jordan) (actress); Peoria, Ill., Apr. 15, 1898.
McGUIRE, Dorothy (actress); Omaha, Nebr., June 14, 1919.
McKAY, Douglas (U. S. Secy. of Interior); Portland, Oreg., June 24, 1893.
McKELDIN, Theodore R. (Governor, Md.); Baltimore, Md., Nov. 20, 1900.
McLAGLEN, Victor (actor); Tunbridge Wells, Eng., Dec. 11, 1886.
McNAMARA, Patrick V. (U. S. Senator, Mich.); No. Weymouth, Mass., Oct. 4, 1894.
McRAE, Gordon (singer); East Orange, N. J., Mar. 12, 1921.
MEANY, George (labor leader); New York City, Aug. 16, 1894.
MEDINA, Harold R. (U. S. jurist); Brooklyn, N. Y., Feb. 16, 1888.
MEEKER Ralph (Ralph Rathgeber) (actor); Minneapolis, Minn., Nov. 21, 1920.
MEITNER, Lise (physicist); Vienna, Aus., Nov. 7, 1878.
MELCHIOR, Lauritz (tenor); Copenhagen, Den., Mar. 20, 1890.
MELTON, James (tenor); Moultrie, Ga., Jan. 2, 1904.
MENCKEN, H. L. (Henry L.) (editor & author); Baltimore, Md., Sept. 12, 1880.
MENDÈS-FRANCE, Pierre (French statesman); Paris, Fr., Jan. 11, 1905.
MENJOU, Adolphe (actor); Pittsburgh, Pa., Feb. 18, 1890.
MENOTTI, Gian-Carlo (composer); Cadegliano, It., July 7, 1911.
MENUHIN, Yehudi (violinist); New York City, Apr. 22, 1916.
MENZIES, Robert Gordon (Prime Minister, Australia); Jeparit, Australia, Dec. 20, 1894.
MERCER, Johnny (singer & song writer); Savannah, Ga., Nov. 18, 1909.
MEREDITH, Burgess (actor); Cleveland, Ohio, Nov. 16, 1908.
MERMAN, Ethel (Ethel Zimmermann) (actress & singer); Astoria, N. Y., Jan. 16, 1909.
MERRILL, Robert (baritone); Brooklyn, N. Y., June 4, 1919.
MERTON, Thomas (poet & religious writer); Prades, Fr., Jan. 31, 1915.
MESTROVIČ, Ivan (sculptor); Vrpolje, Yugos., Aug. 15, 1883.
MEYER, Eugene (publisher); Los Angeles, Calif., Oct. 31, 1875.
MEYNER, Robert B. (Governor, N. J.); Easton, Pa., July 3, 1908.
MICHENER, James A. (novelist); New York City, Feb. 3, 1907.
MIDDLECOFF, Cary (golfer); Halls, Tenn., Jan. 6, 1921.
MIELZINER, Jo (stage designer); Paris, Fr., Mar. 19, 1901.
MILANOV, Zinka (soprano); Zagreb, Yugos., May 17, 1908.
MILHAUD, Darius (composer); Aix-en-Provence, Fr., Sept. 4, 1892.

MILLAND, Ray (Jack Millane) (actor); Neath, Wales, Jan. 3, 1907.
MILLER, Arthur (dramatist); N. Y. C., 1915.
MILLIKIN, Eugene D. (U. S. Senator, Colo.); Hamilton, Ohio, Feb. 12, 1891.
MILNE, A. A. (Alan A.) (novelist & dramatist), London, Eng., Jan. 18, 1882.
MILSTEIN, Nathan (violinist); Odessa, Russ., Dec. 31, 1904.
MINTON, Sherman (U. S. jurist); Georgetown, Ind., Oct. 20, 1890.
MIRÓ, Joan (painter); Barcelona, Sp., Apr. 21, 1893.
MITCHELL, James P. (Secy. of Labor, U. S.); Elizabeth, N. J., Nov. 12, 1902.
MITCHELL, Millard (actor); Havana, Cuba, 1903.
MITCHELL, Thomas (actor); Elizabeth, N. J., July 11, 1895.
MITCHUM, Robert (actor); Rising Sun, Del.
MITROPOULOS, Dimitri (orchestra conductor); Athens, Gr., Feb. 18, 1896.
MOISEIWITSCH, Benno (pianist); Odessa, Rus., Feb. 22, 1890.
MOLOTOV, Vyacheslav M. (V. M. Skryabin) (Soviet statesman); Kukarka, Rus., Mar. 9, 1890.
MONROE, Marilyn (Norma Daugherty) (actress); Los Angeles, June 1, 1928.
MONROE, Vaughn (band leader); Akron, Ohio, Oct. 7, 1912.
MONRONEY, A. S. Mike (U. S. Senator, Okla.); Oklahoma City, Okla., Mar. 2, 1902.
MONSARRAT, Nicholas (novelist); Liverpool, Eng., Mar. 22, 1910.
MONTEUX, Pierre (orchestra conductor); Paris, Fr., Apr. 4, 1875.
MONTGOMERY, Robert (Henry, Jr.) (actor); Beacon, N. Y., May 21, 1904.
MOORE, Archie (boxer); Collinsville, Ill., Dec. 13, 1916.
MOORE, Henry (sculptor); Castleford, Eng., July 30, 1898.
MOORE, Marianne (poet); St. Louis, Mo., Nov. 15, 1887.
MOORE, Victor (actor); Hammonton, N. J., Feb. 24, 1876.
MOOREHEAD, Agnes (actress); Clinton, Mass., Dec. 6, 1906.
MORGAN, Michele (Simone Roussel) (actress); Paris, Fr., Feb. 29, 1920.
MORINI, Erica (violinist); Vienna, Aus., Jan. 5, 1910.
MORLEY, Christopher (novelist); Haverford, Pa., May 5, 1890.
MORLEY, Robert (actor); Wiltshire, Eng., May 26, 1908.
MORSE, Wayne L. (U. S. Senator, Oreg.); nr. Madison, Wis., Oct. 20, 1900.
MOSES, Grandma (Anna Mary) (painter); Greenwich, N. Y., Sept. 7, 1860.
MOSES, Robert (NYC public official); New Haven, Conn., Dec. 18, 1888.
MOSSADEGH, Mohammed (Iranian statesman); Teheran, Persia, 1880(?).
MUENCH, Charles (orchestra conductor); Strasbourg, Ger., Sept. 1891.
MULLOY, Gardnar (tennis player); Miami, Fla., Nov. 22, 1914.
MUMFORD, Lewis (author); Flushing, N. Y., Oct. 19, 1895.
MUNDT, Karl E. (U. S. Senator, S. Dak.); Humboldt, S. Dak., June 3, 1900.
MUNI, Paul (Muni Weisenfreund) (actor); Lemberg, Aus., Sept. 22, 1895.
MUNSEL, Patrice (soprano); Spokane, Wash., May 14, 1925.
MURPHY, George (actor); New Haven, Conn., July 4, 1904.
MURRAY, Arthur (dancing teacher); New York City, Apr. 4, 1895.
MURRAY, James E. (U. S. Senator, Mont.); nr. St. Thomas, Ont., Can., May 3, 1876.
MURRAY, Ken (Don Court) (actor); New York City, July 14, 1903.
MURROW, Edward R. (radio commentator); Greensboro, N. C.
MUSIAL, Stan (baseball player); Donora, Pa., Nov. 21, 1920.
MUSKIE, Edmund S. (Governor, Maine); Rumford, Maine, Mar. 28, 1914.

NAGURSKI, Bronko (football player); International Falls, Minn., Nov. 3, 1908.
NAISH, J. Carrol (actor); New York City, Jan. 21, 1900.
NASH, Ogden (poet); Rye, N. Y., Aug. 19, 1902.
NASSER, Gamal Abdel (Premier, Egypt); Egypt, c.1918.
NATHAN, George Jean (theater critic); Ft. Wayne, Ind., Feb. 14, 1882.
NATHAN, Robert (novelist); New York City, Jan. 2, 1894.
NATWICK, Mildred (actress); Baltimore, Md., June 19, 1908.
NEAGLE, Anna (Marjorie Robertson) (actress); nr. London, Eng., Oct. 20, 1904.
NEELY, Matthew M. (U. S. Senator, W. Va.); Grove, W. Va., Nov. 9, 1874.
NEGRI, Pola (Appollonia Chalupec) (actress); Lipno, Pol., 1899.
NEHRU, Jawaharlal (Prime Minister, India); Allahabad, India, Nov. 14, 1889.
NELSON, Ozzie (Oswald) (band leader); Jersey City, N. J., 1906.
NENNI, Pietro (Italian Socialist leader); Faenza, It., Feb. 9, 1891.
NEUBERGER, Richard L. (U. S. Sen., Oreg.); Multnomah Co., Oreg., Dec. 26, 1912.
NEVINS, Allan (historian); Camp Point, Ill., May 20, 1890.
NEWHOUSE, Samuel I. (newspaperman); New York City, May 24, 1895.
NEWTON, Robert (actor); Shaftesbury, Dorset, Eng., June 1, 1905.
NGO DINH DIEM (Viêt-Nam statesman); Quang Binh, Annam, 1901.
NIEBUHR, Reinhold (clergyman); Wright City, Mo., June 21, 1892.
NIVEN, David (actor); Scotland.
NIXON, Richard M. (Vice President, U. S.); Yorba Linda, Calif., Jan. 9, 1913.
NOGUCHI, Isamu (sculptor); Los Angeles, Calif., Nov. 7, 1904.
NOLAN, Lloyd (actor); San Francisco, Calif.
NORRIS, Kathleen (novelist); San Francisco, Calif., July 16, 1880.
NOVAËS, Guiomar (pianist); São João de Boa Vista, Braz., Feb. 28, 1895.
NOVOTNA, Jarmila (soprano); Prague, Czech., Sept. 23, 1911.
NOYES, Alfred (poet); Wolverhampton, Eng., Sept. 16, 1880.

NUGENT, Elliott (actor & director); Dover, Ohio, Sept. 20, 1899.

OBERON, Merle (Merle O'Brien Thompson) (actress); Tasmania, Feb. 19, 1911.
O'BRIEN, Edmond (actor); New York City, Sept. 10, 1915.
O'BRIEN, Margaret (actress); Los Angeles, Calif., Jan. 15, 1937.
O'BRIEN, Pat (actor); Milwaukee, Wis., Nov. 11, 1899.
O'CASEY, Sean (dramatist); Dublin, Ire., 1881.
O'CONNOR, Donald (actor); Chicago, Ill., Aug. 28, 1925.
ODETS, Clifford (dramatist); Philadelphia, Pa., July 18, 1906.
O'FAOLAIN, Seán (story writer); Cork, Ire., Feb. 22, 1900.
O'FLAHERTY, Liam (novelist); Aran Is., Ire., 1897.
O'HARA, John (novelist); Pottsville, Pa., Jan. 31, 1905.
O'HARA, Maureen (Maureen FitzSimons) (actress); Milltown, Ire., Aug. 17, 1921.
O'KEEFFE, Georgia (painter); Sun Prairie, Wis., Nov. 15, 1887.
O'KELLY, Séan T. (President, Ireland); Dublin, Ire., Aug. 25, 1882.
OLIVIER, Sir Laurence (actor); Dorking, Eng., May 22, 1907.
OLSEN, Ole (John) (comedian); Wabash, Ind., Nov. 6, 1892.
O'MAHONEY, Joseph C. (U. S. Senator, Wyo.); Chelsea, Mass., Nov. 5, 1884.
OPPENHEIMER, J. Robert (physicist); New York City, Apr. 22, 1904.
ORMANDY, Eugene (orchestra conductor); Budapest, Hung., Nov. 18, 1899.
O'SULLIVAN, Maureen (actress); Boyle, Ire., May 17, 1911.
OTT, Mel (Melvin T.) (baseball player); Gretna, La., Mar. 2, 1909.
OWENS, Jesse (sprinter); Decatur, Ala., Sept. 12, 1913.

PALANCE, Jack (actor); Latimer, Pa., Feb. 18, 1920.
PALEY, William S. (broadcasting executive); Chicago, Ill., Sept. 28, 1901.
PALMER, Lilli (actress); Posen, Germany, May 27, 1917.
PARKER, Dorothy (poet & story writer); West End, N. J., Aug. 22, 1893.
PARKER, Eleanor (actress); Cedarville, Ohio, June 26, 1922.
PARSONS, Louella O. (columnist); Freeport, Ill., Aug. 6, 1893.
PASTERNAK, Joseph (movie producer); Simleul-Silvaniel, Rum., Sept. 19, 1901.
PASTORE, John O. (U. S. Senator, R. I.); Providence, R. I., Mar. 17, 1907.
PATON, Alan (novelist); Pietermaritzburg, So. Af., Jan. 11, 1903.
PATTERSON, Paul (Governor, Oreg.); Kent, Ohio, July 18, 1900.
PAUL I (King, Greece); Athens, Gr., Dec. 14, 1901.
PAUL, Eliot (novelist); Malden, Mass., Feb. 13, 1891.
PAYNE, Frederick G. (U. S. Senator, Maine); Lewiston, Me., July 24, 1900.
PEALE, Norman Vincent (clergyman & author); Bowersville, Ohio, May 31, 1898.
PEARSON, Drew (columnist); Evanston, Ill., Dec. 13, 1897.
PEARSON, Hesketh (author); Hawford, Worcs., Eng., Feb. 20, 1887.
PEARSON, Lester B. (Canadian statesman); Toronto, Ont., Can., Apr. 23, 1897.
PEATTIE, Donald Culross (nature writer); Chicago, Ill., June 21, 1898.
PECK, Gregory (actor); La Jolla, Calif., Apr. 5, 1916.
PEERCE, Jan (Jacob Pincus Perelmuth) (tenor); New York City, 1904.
PEGLER, Westbrook (columnist); Minneapolis, Minn., Aug. 2, 1894.
PERELMAN, S. J. (Sidney J.); (humorist); Brooklyn, N. Y., Feb. 1, 1904.
PERÓN, Juan D. (former President, Argentina); nr. Lobos, Arg., Oct. 8, 1895.
PETERS, Jean (actress); Canton, Ohio, Oct. 15, 19??.
PETERS, Roberta (Roberta Peterman) (soprano); New York City, May 4, 1930.
PETRI, Egon (pianist); Hanover, Ger., Mar. 23, 1881.
PETRILLO, James C. (labor leader); Chicago, Ill., Mar. 16, 1892.
PHILIP (Philip Mountbatten) (Duke of Edinburgh); Corfu, June 10, 1921.
PIATIGORSKY, Gregor (cellist); Ekaterinoslav, Rus., Apr. 17, 1903.
PICASSO, Pablo (painter); Málaga, Sp., Oct. 25, 1881.
PICCARD, Auguste (physicist); Basel, Switz., Jan. 28, 1884.
PICCARD, Jean Félix (aeronautics engineer); Basel, Switz., Jan. 28, 1884.
PICKFORD, Mary (Gladys Mary Smith) (actress); Toronto, Can., Apr. 8, 1893.
PIDGEON, Walter (actor); East St. John, Can., Sept. 23, 1898.
PINAY, Antoine (French statesman); St.-Symphorien-sur-Coise, Fr., Dec. 30, 1891.
PINZA, Ezio (basso); Rome, It., May 18, 1892.
PISTON, Walter (composer); Rockland, Maine, Jan. 20, 1894.
PITTS, Zasu (actress); Parsons, Kans., Jan. 3, 1898.
PIUS XII (Eugenio Pacelli) (Pope); Rome, It., Mar. 2, 1876.
PONS, Lily (soprano); Cannes, Fr., Apr. 13, 1904.
PONSELLE, Rosa (soprano); Meriden, Conn., Jan. 22, 1897.
PORTER, Cole (song writer); Peru, Ind., June 9, 1893.
PORTER, Katherine Anne (story writer); Indian Creek, Tex., May 15, 1894.
POST, Emily (author on etiquette); Baltimore, Md., Oct. 3, 1873.
POTTER, Charles E. (U. S. Senator, Mich.); Lapeer, Mich., Oct. 30, 1916.
POULENC, Francis (composer); Paris, Fr., Jan. 7, 1899.
POUND, Ezra (poet); Hailey, Idaho, Oct. 30, 1885.
POWELL, Dick (actor); Mt. View, Ark., Nov. 14, 1904.
POWELL, Jane (Suzanne Burce) (actress); Portland, Oreg., Apr. 1, ??.

POWELL, William (actor); Pittsburgh, Pa., July 29, 1892.
POWER, Tyrone (actor); Cincinnati, Ohio, May 5, 1914.
PRATT, Fletcher (historian); Buffalo, N. Y., Apr. 25, 1897.
PREMINGER, Otto (movie producer & director); Vienna, Aus., Dec. 5, 1906.
PRESCOTT, Orville (literary critic); Cleveland, Ohio, Sept. 8, 1906.
PRICE, George (cartoonist); Coytesville, N. J., June 9, 1901.
PRICE, Vincent (actor); St. Louis, Mo., May 27, 1911.
PRIESTLEY, J. B. (John B.) (novelist & dramatist); Bradford, Eng., Sept. 13, 1894.
PRIMROSE, William (violist); Glasgow, Scot., Aug. 23, 1904.
PRIMUS, Pearl (dancer); Trinidad, Nov. 29, 1921.
PURTELL, William A. (U. S. Senator, Conn.); Hartford, Conn., May 6, 1897.
PUSEY, Nathan M. (educator); Council Bluffs, Iowa, Apr. 4, 1907.

QUEUILLE, Henri (French statesman); Neuvic d'Ussel, Fr., Mar. 31, 1884.
QUINN, Anthony (actor); Chihuahua, Mex., Apr. 21, 1915.
QUIRINO, Elpidio (Philippine statesman); Vigan, Luzon, Phil., Nov. 16, 1890.

RABI, Isidor (physicist); Austria, July 29, 1898.
RADFORD, Adm. Arthur W. (Chmn., Joint Chiefs of Staff, U. S.); Chicago, Ill., Feb. 27, 1896.
RAFT, George (actor); New York City, Sept. 27, 19??.
RAINS, Claude (actor); London, Eng., Nov. 10, 1889.
RANK, J. Arthur (movie producer); Hull, Eng., Dec. 23, 1888.
RANSOM, John Crowe (poet); Pulaski, Tenn., Apr. 30, 1888.
RATHBONE, Basil (actor); Johannesburg, So. Af., June 13, 1892.
RATOFF, Gregory (movie director); Petrograd, Rus., Apr. 20, 1897.
RATTIGAN, Terence (dramatist); London, Eng., June 10, 1911.
RATTNER, Abraham (painter); Poughkeepsie, N. Y., July 8, 1895.
RAY, Johnnie (singer); Roseburg, Oreg., Jan. 10, 1927.
RAYBURN, Sam (Speaker of House, U. S..); Roane Co., Tenn., Jan. 6, 1882.
RAYE, Martha (Margie Yvonne Reed) (actress); Butte, Mont., Aug. 27, 1916.
REAGAN, Ronald (actor); Tampico, Ill.
REDGRAVE, Michael (actor); Bristol, Eng., Mar. 20, 1908.
REED, Donna (actress); Denison, Iowa.
REED, Stanley F. (U. S. jurist); Mason Co., Ky., Dec. 31, 1884.
REID, Helen Rogers (publisher); Appleton, Wis., Nov. 23, 1882.
REID, Ogden (newspaperman); New York City, June 24, 1925.
REID, Whitelaw (newspaperman); Purchase, N. Y., July 26, 1913.
REINER, Fritz (orchestra conductor); Budapest, Hung., Dec. 19, 1888.
REMARQUE, Erich Maria (novelist); Osnabrük, Ger., June 22, 1898.
RENNIE, Michael (actor); Bradford, Yorks., Eng., Aug. 25, 1909.
RESTON, James (journalist); Clydebank, Scot., Nov. 3, 1909.
REUTHER, Walter P. (labor leader); Wheeling, W. Va., Sept. 1, 1907.
REYNAUD, Paul (French statesman); Barcelonette, Fr., Oct. 15, 1878.
REYNOLDS, Allie (baseball player); Bethany, Okla., Feb. 10, 1919.
REYNOLDS, Debbie (Mary Reynolds) (actress); El Paso, Tex., Apr. 1, 1932.
RHEE, Syngman (President, South Korea); Whanghai Prov., Kor., Apr. 26, 1875.
RIBICOFF, Abraham A. (Governor, Conn.); New Britain, Conn., Apr. 9, 1910.
RICE, Elmer (Elmer Reizenstein) (dramatist); New York City, Sept. 28, 1892.
RICHARD, Maurice (hockey player); Montreal, Que., Can., Aug. 4, 1921.
RICHARDS, Paul (baseball manager); Waxahachie, Tex., Nov. 21, 1908.
RICHARDS, Vincent (tennis player); New York City, Mar. 20, 1903.
RICHARDSON, Sir Ralph (actor); Cheltenham, Eng., Dec. 19, 1902.
RICHTER, Conrad (novelist); Pine Grove, Pa., Oct. 13, 1890.
RICKENBACKER, Eddie (Edward V.) (airline executive); Columbus, Ohio, Oct. 8, 1890.
RICKEY, Branch (baseball executive); Senecaville, Ohio, Dec. 20, 1881.
RIDGWAY, Gen. Matthew B. (Army officer, U. S.); Ft. Monroe, Va., Mar. 3, 1895.
RINEHART, Mary Roberts (novelist); Pittsburgh, Pa.
RITTER, Thelma (actress); Brooklyn, N. Y., 1905.
RIVERA, Diego (painter); Guanajuato, Mex., Dec. 8, 1886.
RIZZUTO, Phil (baseball player); New York City, Sept. 25, 1918.
ROARK, Helen Wills Moody (tennis player); Centerville, Calif., Oct. 6, 1905.
ROBBINS, Jerome (Jerome Rabinowitz) (choreographer); New York City, Oct. 11, 1918.
ROBERTS, Dennis J. (Governor, R. I.); Providence, R. I., Apr. 8, 1903.
ROBERTS, Kenneth (novelist); Kennebunk, Maine, Dec. 8, 1885.
ROBERTSON, A. Willis (U. S. Senator, Va.); Martinsburg, W. Va., May 27, 1887.
ROBESON, Paul (baritone); Princeton, N. J., Apr. 9, 1898.
ROBINSON, Edward G. (Emmanuel Goldenberg) (actor); Bucharest, Rum., Dec. 12, 1893.
ROBINSON, Henry Morton (novelist); Boston, Mass., Sept. 7, 1898.
ROBINSON, Jackie (baseball player); Cairo, Ga., Jan. 31, 1919.
ROBINSON, Ray (boxer); Detroit, Mich., May 3, 1920.
ROBSON, Flora (actress); South Shields, Eng., Mar. 28, 1902.
ROCHESTER (Eddie Anderson) (comedian); Oakland, Calif., Sept. 18, 1905.

ROCKEFELLER, David (business executive); New York City, June 12, 1915.
ROCKEFELLER, John D., Jr. (industrialist); Cleveland, Ohio, Jan. 29, 1874.
ROCKEFELLER, Laurance S. (business executive); New York City, May 26, 1910.
ROCKEFELLER, Nelson A. (Administrative Assistant to President, U. S.); Bar Harbor, Maine, July 8, 1908.
ROCKEFELLER, Winthrop (business executive); New York City, May 1, 1912.
ROCKWELL, Norman (illustrator); New York City, Feb. 3, 1894.
RODGERS, Richard (song writer); New York City, June 28, 1902.
RODZINSKI, Artur (orchestra conductor); Spalato, Dalmatia, Jan. 2, 1892.
ROGERS, Buddy (Charles) (actor); Olathe, Kans., Aug. 13, 1904.
ROGERS, Ginger (Virginia McMath) (actress); Independence, Mo., July 16, 1911.
ROGERS, Roy (Leonard Slye) (actor); Cincinnati, Ohio, Nov. 5, 1912.
ROLAND, Gilbert (Luis de Alonso) (actor); Juarez, Mex., Dec. 11, 1905.
ROMAINS, Jules (Louis Farigoule) (novelist); Saint-Julien Chapteuil, Fr., Aug. 26, 1885.
ROMAN, Ruth (actress); Boston, Mass., Dec. 23, 1924.
ROME, Harold (composer); Hartford, Conn., May 27, 1908.
ROMERO, Cesar (actor); New York City, Feb. 15, 1907.
ROMULO, Carlos P. (Philippine statesman); Manila, Phil., Jan. 14, 1899.
ROONEY, Mickey (Joe Yule, Jr.) (actor); Brooklyn, N. Y., Sept. 23, 1922.
ROOSEVELT, Eleanor (U. S. statesman); New York City, Oct. 11, 1884.
ROSE, Billy (Wm. S. Rosenberg) (stage producer); New York City, Sept. 6, 1899.
ROSS, Lanny (singer); Seattle, Wash., Jan. 19, 1906.
ROSSELINI, Roberto (movie director); Rome, It., May 8, 1906.
ROUAULT, Georges (painter); Paris, Fr., May 27, 1871.
RUBINSTEIN, Artur (pianist); Warsaw, Pol., Jan. 28, 1889.
RUGGLES, Charles (actor); Los Angeles, Calif., Feb. 8, 1892.
RUSSELL, Bertrand (philosopher); Trelleck, Eng., May 18, 1872.
RUSSELL, Charles H. (Governor, Nev.); Lovelock, Nev., Dec. 27, 1903.
RUSSELL, Jane (actress); Bemidji, Minn., June 21, 1921.
RUSSELL, Richard B. (U. S. Senator, Ga.); Winder, Ga., Nov. 2, 1897.
RUSSELL, Rosalind (actress); Waterbury, Conn., June 4, 1912.
RYAN, Robert (actor); Chicago, Ill., Nov. 11, 1913.

SABLON, Jean (singer); Paris, Fr., Mar. 25, 1912.
SACKVILLE-WEST, Victoria (poet & novelist); Sevenoaks, Eng., Mar. 9, 1892.
SADDLER, Sandy (Joe) (boxer); Boston, Mass., June 28, 1926.
SAINT, Eva Marie (actress); Newark, N. J., July 4, 1924.
ST. DENIS, Ruth (Ruth Denis) (dancer); Newark, N. J., Jan 20, 1880.
ST. LAURENT, Louis Stephen (Prime Minister, Canada); Compton, Que., Can., Feb. 1, 1882.
SALAZAR, António de Oliveira (Premier, Portugal); Santa Comba, Port., 1889.
SALINGER, J. D. (novelist); New York City, Jan. 1, 1919.
SALK, Jonas (physician); New York City, Oct. 28, 1914.
SALTONSTALL, Leverett (U. S. Senator, Mass.); Chestnut Hill, Mass., Sept. 1, 1892.
SANDBURG, Carl (poet & biographer); Galesburg, Ill., Jan. 6, 1878.
SANDE, Earl (horse trainer); Groton, S. Dak., Nov. 19, 1898.
SANDERS, George (actor); St. Petersburg, Rus., 1906.
SARAZEN, Gene (golfer); Harrison, N. Y., Feb. 27, 1902.
SARNOFF, David (radio executive); Uzlian, Rus., Feb. 27, 1891.
SAROYAN, William (story writer & dramatist); Fresno, Calif., Aug. 31, 1908.
SARTRE, Jean-Paul (philosopher); Paris, Fr., June 21, 1905.
SAVO, Jimmie (entertainer); New York City, 1895
SAYÃO, Bidú (soprano); Rio de Janeiro, Braz., May 11, 1906.
SCELBA, Mario (Italian statesman); Sicily, Sept. 5, 1901.
SCHAEFER, Jake (billiards player); Chicago, Ill., Oct. 18, 1894.
SCHARY, Dore (movie producer); Newark, N. J., Aug. 31, 1905.
SCHIAPARELLI, Elsa (fashion designer); Rome, It.
SCHILDKRAUT, Joseph (actor); Vienna, Aus., Mar. 22, 1895.
SCHIPA, Tito (tenor); Lecce, It., Jan. 2, 1890.
SCHLESINGER, Arthur M., Jr. (historian); Columbus, Ohio, Oct. 15, 1917.
SCHLESINGER, Arthur M., Sr. (historian); Xenia, Ohio, Feb. 27, 1888.
SCHOEPPEL, Andrew F. (U. S. Senator, Kans); Barton Co., Kans., Nov. 23, 1894.
SCHULBERG, Budd (novelist); New York City, Mar. 27, 1914.
SCHUMAN, Robert (French statesman); Luxemburg, Luxem., June 29, 1886.
SCHUMAN, William (composer); New York City, Aug. 4, 1910.
SCHWARZKOPF, Elisabeth (soprano); Jarotschin, Posen, Ger., Dec. 9, 1915.
SCHWEITZER, Albert (organist, physician & philosopher); Kaysersburg, Alsace, Jan. 14, 1875.
SCOTT, Barbara Ann (skater); Ottawa, Can., May 9, 1928.
SCOTT, Hazel (pianist); Port of Spain, Trin., June 11, 1920.
SCOTT, Martha (actress); Jamesport, Mo., Sept. 22, 1916.
SCOTT, Randolph (actor); Orange Co., Va., Jan. 23, 1903.
SCOTT, Raymond (band leader); Brooklyn, N. Y., Sept. 10, 1909.

SCOTT, William K. (U. S. Senator, N. C.); Haw River, N. C., Apr. 17, 1896.
SEABORG, Glenn T. (nuclear chemist); Ishpeming, Mich., Apr. 19, 1912.
SEDGMAN, Frank (tennis player); Mont Albert, Victoria, Austr., Oct. 29, 1927.
SEGAL, Vivienne (singer); Philadelphia, Pa., 1897.
SEGOVIA, Andrés (guitarist); Linares, Sp., Feb. 18, 1894.
SEGURA, Francisco (tennis player); Guayaquil, Ec., June 20, 1921.
SEIXAS, E. Victor, Jr. (tennis player); Philadelphia, Pa., Aug. 30, 1923.
SELZNICK, David O. (movie producer); Pittsburgh, Pa., May 10, 1902.
SERKIN, Rudolf (pianist); Eger, Boh., Mar. 28, 1903.
SESSIONS, Roger (composer); Brooklyn, N. Y. Dec. 28, 1896.
SHAPLEY, Harlow (astronomer); Nashville, Mo., Nov. 2, 1885.
SHAUGHNESSY, Frank J. (baseball executive); Albion, Ill., Apr. 8, 1885.
SHAW, Artie (clarinetist); New York City, May 23, 1910.
SHAW, Irwin (dramatist & novelist); New York City, Feb. 27, 1913.
SHAW, Robert (choral director); Red Bluff, Calif., Apr. 30, 1916.
SHAWN, Ted (Edwin) (dancer); Kansas City, Mo., Oct. 21, 1891.
SHEARER, Moira (Moira Shearer King) (ballerina); Dunfermline, Fifes., Scot., Jan. 17, 1926.
SHEARER, Norma (actress); Montreal, Can., Aug. 10, 1902.
SHEEAN, Vincent (novelist & essayist); Pana, Ill., Dec. 5, 1899.
SHEEN, Fulton J. (clergyman & author); El Paso, Ill., May 8, 1895.
SHERIDAN, Ann (actress); Denton, Tex., Feb. 21, 1915.
SHERRIFF, Robert (dramatist); Kingston-on-Thames, Eng., June 6, 1896.
SHERWOOD, Robert E. (dramatist); New Rochelle, N. Y., Apr. 4, 1896.
SHIVERS, Allan (Governor, Tex.); Lufkin, Tex., Oct. 5, 1907.
SHOEMAKER, Willie (jockey); Fabens, Tex., Aug. 19, 1931.
SHOLOKHOV, Mikhail (novelist); Veshenskaya, Rus., 1905.
SHORE, Dinah (singer); Winchester, Tenn., Mar. 1, 1917.
SHOSTAKOVICH, Dmitri (composer); Petrograd, Rus., Sept. 26, 1906.
SHRINER, Herb (comedian); Toledo, Ohio, May 29, 1918.
SHULMAN, Max (humorist); St. Paul, Minn., Mar. 14, 1919.
SIBELIUS, Jean (composer); Tavastehus, Fin., Dec. 8, 1865.
SIDNEY, Sylvia (Sophia Koskow) (actress); New York City, Aug. 8, 1910.
SIKORSKY, Igor I. (aircraft designer); Kiev, Rus., May 25, 1889.
SILONE, Ignazio (Secondo Tranquilli) (novelist); Pescina dei Marsi, It., May 1, 1900.
SILVERS, Phil (comedian); Brooklyn, N. Y., May 11, 1912.
SIMENON, Georges (Georges Sim) (novelist); Liége, Belg., Feb. 13, 1903.
SIMMS, John F. (Governor, N. Mex.); Albuquerque, N. Mex., Dec. 18, 1916.
SIMONSON, Lee (stage designer); New York City, June 26, 1888.
SIMPSON, Milward L. (Governor, Wyo.); Jackson Hole, Wyo., Nov. 12, 1897.
SINATRA, Frank (singer & actor); Hoboken, N. J., 1918.
SINCLAIR, Upton (novelist); Baltimore, Md., Sept. 20, 1878.
SINGHER, Martial (baritone); Oloron-Ste.-Marie, Fr., Aug. 14, 1904.
SIQUEIROS, David (painter); Mexico, 1894.
SITWELL, Edith (poet); Scarborough, Eng., 1887.
SITWELL, Sir Osbert (poet & satirist); London, Eng., Dec. 6, 1892.
SKELTON, Red (Richard) (comedian); Vincennes, Ind., July 18, 1913.
SKINNER, Cornelia Otis (actress); Chicago, Ill., May 30, 1901.
SLEZAK, Walter (actor); Vienna, Aus., May 3, 1902.
SLOAN, Alfred P., Jr. (business executive); New Haven, Conn., May 23, 1875.
SMATHERS, George A. (U. S. Senator, Fla.); Atlantic City, N. J., Nov. 14, 1913.
SMITH, Betty (novelist); Brooklyn, N. Y., Dec. 15, 1904.
SMITH, H. Alexander (U. S. Senator, N. J.,); New York City, Jan. 30, 1880.
SMITH, H. Allen (humorist); McLeansboro, Ill., Dec. 19, 1907.
SMITH, Kate (Kathryn) (singer); Washington, D. C., 1910.
SMITH, Kent (actor); Smithville, Maine, Mar. 19, 1907.
SMITH, Lillian (novelist); Jasper, Fla., 1897.
SMITH, Margaret Chase (U. S. Senator, Maine); Skowhegan, Maine, Dec. 14, 1897.
SMITH, Red (Walter) (sports writer); Green Bay, Wis., Sept. 25, 1905.
SMYLIE, Robert E. (Governor, Idaho); Marcus, Iowa, Oct. 31, 1914.
SMYTHE, Conn (hockey executive); Toronto, Ont., Can., Feb. 1, 1895.
SNEAD, Sam (golfer); Hot Springs, Va., May 27, 1912.
SOLOMON (Solomon Cutner) (pianist); London, Eng., 1902.
SOTHERN, Ann (Harriet Lake) (actress); Valley City, N. Dak., Jan. 22, 1911.
SPAAK, Paul-Henri (Belgian statesman); Brussels, Belg., Jan. 25, 1899.
SPARKMAN, John J. (U. S. Senator, Ala.); nr. Hartselle, Ala., Dec. 20, 1899.
SPEAKER, Tris (baseball player); Hubbard, Tex., Apr. 4, 1888.
SPENDER, Stephen (poet); nr. London, Eng., Feb. 28, 1909.
SPEWACK, Bella (dramatist); Hungary, 1899.
SPEWACK, Sam (dramatist); Russia, 1899.
SPILLANE, Mickey (Frank Spillane) (novelist); Brooklyn, N. Y., Mar. 9, 1918.
SPROUL, Robert G. (educator); San Francisco, Calif., May 22, 1891.
STAGG, A. Alonzo (football coach); West Orange, N. J., Aug. 16, 1862.
STANLEY, Kim (Patricia Reid) (actress); Tularosa, N. Mex., Feb. 11, 1925.

STANLEY, Thomas B. (Governor, Va.); Spencer, Va., July 16, 1890.
STANWYCK, Barbara (Ruby Stevens) (actress); Brooklyn, N. Y., July 16, 1907.
STASSEN, Harold E. (U. S. administrator); West St. Paul, Minn., Apr. 13, 1907.
STEBER, Eleanor (soprano); Wheeling, W. Va., July 17, 1916.
STEFANSSON, Vihljalmur (explorer); Arnes, Can., Nov. 3, 1879.
STEICHEN, Edward (photographer); Luxemburg, May 27, 1879.
STEINBECK, John (novelist); Salinas, Calif., Feb. 27, 1902.
STEINBERG, Saul (cartoonist); Ramnic-Sarat, Rum., June 15, 1914.
STENGEL, Casey (Charles D.) (baseball manager); Kansas City, Mo., July 30, 1891.
STENNIS, John (U. S. Senator, Miss.); Kemper Co., Miss., Aug. 3, 1901.
STERN, Isaac (violinst); Kreminiesy, Rus., July 21, 1920.
STEVENS, Risë (mezzo-soprano); New York City, June 11, 1913.
STEVENS, Robert T. (Former Secy. of Army, U. S.); Fanwood, N. J., July 31, 1899.
STEVENSON, Adlai E. (U. S. statesman); Los Angeles, Calif., Feb. 5, 1900.
STEWART, James (actor); Indiana, Pa., May 20, 1908.
STICKNEY, Dorothy (actress); Dickinson, N. Dak., June 21, 1900.
STOKES, Thomas (journalist); Atlanta, Ga., Nov. 1, 1898.
STOKOWSKI, Leopold (orchestra conductor); London, Eng., Apr. 18, 1882.
STONE, Fred A. (actor); Valmont, Colo., Aug. 19, 1873.
STONE, Irving (biographer), San Francisco, Calif., July 14, 1903.
STONG, Philip (novelist); Keosauqua, Iowa, Jan. 27, 1899.
STRANAHAN, Frank R. (golfer); Toledo, Ohio, Aug. 5, 1922.
STRATTON, William G. (Governor, Ill.); Ingleside, Ill., Feb. 26, 1914.
STRAUSS, Lewis L. (AEC Chmn., U. S.); Charleston, W. Va., Jan. 31, 1896.
STRAVINSKY, Igor (composer); Oranienbaum, Rus., June 17, 1882.
STREETER, Edward (novelist); New York City, Aug. 1, 1891.
STRIBLING, Thomas S. (novelist); Clifton, Tenn., Mar. 4, 1881.
STRONG, Ken (football player); West Haven, Conn., Apr. 21, 1906.
STURGES, Preston (dramatist & director); Chicago, Ill., Aug. 29, 1898.
SUCKOW, Ruth (novelist); Hawarden, Iowa, Aug. 6, 1892.
SULLAVAN, Margaret (actress); Norfolk, Va., May 16, 1911.
SULLIVAN, Barry (Patrick Barry) (actor); New York City, Aug. 29, 1912.
SULLIVAN, Ed (columnist); New York City, Sept, 28, 1902.
SULLIVAN, Francis L. (actor); London, Eng., Jan. 6, 1903.
SULLIVAN, Frank (humorist); Saratoga Springs, N. Y., Sept. 22, 1892.
SULZBURGER, Arthur H. (publisher); New York City, Sept. 12, 1891.
SUMMERFIELD, Arthur E. (Postmaster General of U. S.); Pinconning, Mich., Mar. 17, 1899.
SVANHOLM, Set (tenor); Vasteras, Swed., Sept. 2, 1904.
SWANSON, Gloria (Josephine Swenson) (actress); Chicago, Ill., Mar. 27, 1898.
SWARTHOUT, Gladys (mezzo-soprano); Deepwater, Mo., Dec. 25, 1904.
SWOPE, Herbert Bayard (journalist); St. Louis, Mo.
SYMINGTON, Stuart (U. S. Senator, Mo.); Amherst, Mass., June 26, 1901.
SZELL, George (orchestra conductor); Budapest, Hung., June 7, 1897.
SZIGETI, Joseph (violinst); Budapest, Hung., Sept. 5, 1892.

TAGLIAVINI, Ferruccio (tenor); Reggio Emilia, It., Aug. 14, 1913.
TALBERT, Billy (tennis player); Cincinnati, Ohio, Sept. 4, 1918.
TALBURT, Harold M. (cartoonist); Toledo, Ohio, Feb. 19, 1895.
TALLCHIEF, Maria (ballerina); Fairfax, Okla., Jan. 24, 1925.
TANDY, Jessica (Jessica Cronyn) (actress); London, Eng., June 7, 1909.
TATE, Allen (poet); Winchester, Ky., Nov. 19, 1899.
TAYLOR, Deems (composer); New York City, Dec. 22, 1885.
TAYLOR, Elizabeth (actress); London, Eng., Feb. 27, 1932.
TAYLOR, Gen. Maxwell D. (Army Ch. Staff, U. S.); Keytesville, Mo., Aug. 26, 1901.
TAYLOR, Robert (S. Arlington Brugh) (actor); Filley, Nebr., Aug. 5, 1911.
TCHELITCHEW, Pavel (painter); nr. Moscow, Rus., Sept. 21, 1898.
TEBALDI, Renata (soprano); Pesaro, It., Jan. 2, 1922.
TEBBETTS, Birdie (George R.) (baseball manager); Nashua, N. H., Nov. 10, 1914.
TELLER, Edward (physicist); Budapest, Hung., Jan. 15, 1908.
TEMPLE, Shirley (actress); Santa Monica, Calif., Apr. 23, 1928.
TEMPLETON, Alec (pianist); Cardiff, Wales, July 4, 1910.
TEYTE, Maggie (soprano); Wolverhampton, Eng., Apr. 17, 1891.
THEBOM, Blanche (mezzo-soprano); Monessen, Pa., Sept. 19, 1919.
THOMAS, Danny (comedian); Deerfield, Mich., Jan. 6, 1914.
THOMAS, John Charles (baritone); Meyersdale, Pa., Sept. 6, 1891.
THOMAS, Lowell (lecturer & author); Woodington, Ohio, Apr. 6, 1892.
THOMAS, Norman M. (Socialist leader); Marion, Ohio, Nov. 20, 1884.
THOMPSON, Randall (composer); New York City, Apr. 21, 1899.
THOMSON, Virgil (composer); Kansas City, Mo., Nov. 25, 1896.
THORBORG, Kerstin (contralto); Venjan, Swed., May 19, 1906.
THOREZ, Maurice (French Communist leader); Noleyles-Godault, Fr., Apr. 28, 1900.

THURBER, James (humorist); Columbus, Ohio, Dec. 8, 1894.
THURMOND, Strom (U. S. Senator, S. C.); Edgefield, S. C., Dec. 5, 1902.
THYE, Edward J. (U. S. Senator, Minn.); Frederick, S. Dak., Apr. 26, 1896.
TIBBETT, Lawrence (baritone); Bakersfield, Calif., Nov. 16, 1896.
TIERNEY, Gene (actress); Brooklyn, N. Y., Nov. 20, 1920.
TIMMERMAN, George Bell, Jr. (Governor, S. C.); Anderson, S. C., Aug. 11, 1912.
TITO, (Josip Brozovich or Broz) (President, Yugoslavia); Kumrovec, Croatia, May 25, 1892.
TODD, Ann (actress); Hartford, Ches., Eng., Jan. 24, 1910.
TODD, Richard (actor); Dublin, Ire., 1920.
TOGLIATTI, Palmiro (Italian Communist leader); Genoa, It., Mar. 26, 1893.
TONE, Franchot (actor); Niagara Falls, N. Y., Feb. 27, 1905.
TOSCANINI, Arturo (orchestra conductor); Palma, It., Mar. 25, 1867.
TOUREL, Jennie (mezzo-soprano); Montreal, Can., June 22, 1910.
TOYNBEE, Arnold J. (historian); London, Eng., Apr. 14, 1889.
TRABERT, Tony (tennis player); Cincinnati, Ohio, Aug. 16, 1930.
TRACY, Lee (actor); Atlanta, Ga., Apr. 14, 1898.
TRACY, Spencer (actor); Milwaukee, Wis., Apr. 5, 1900.
TRAUBEL, Helen (soprano); St. Louis, Mo., June 16, 1903.
TRAUTMAN, George M. (baseball executive); Bucyrus, Ohio, Jan. 11, 1890.
TREVOR, Claire (actress); New York City, Mar. 8, 1909.
TRUEX, Ernest (actor); Kansas City, Mo., Sept. 19, 1890.
TRUJILLO Y MOLINA, Rafael (Dom. Rep. statesman); San Cristóbal, Oct. 24, 1891.
TRUMAN, Harry S. (U. S. statesman); Lamar, Mo., May 8, 1884.
TRUMAN, Margaret (soprano); Independence, Mo., Feb. 17, 1924.
TUCKER, Richard (tenor); New York City, Aug. 28, 1914.
TUCKER, Sophie (Sophie Abuza) (entertainer); Russia, 1884.
TUDOR, Anthony (choreographer); London, Eng., Apr. 4, 1909.
TUNNEY, Gene (James J.) (boxer); New York City, May 25, 1898.
TURNER, Lana (Julia Jean Turner) (actress); Wallace, Idaho, Feb. 8, 1920.
TURNESA, Willie (golfer); Elmsford, N. Y., Jan. 29, 1914.
TWINING, Gen. Nathan F. (Air Force Chief of Staff, U. S.); Monroe, Wis., Oct. 11, 1897.

UNTERMEYER, Louis (poet & anthologist); New York City, Oct. 1, 1885.
UREY, Harold C. (chemist); Walkerton, Ind., Apr. 29, 1893.
USTINOV, Peter (dramatist & actor); London, Eng., 1921.
UTRILLO, Maurice (painter); Paris, Fr., Dec. 25, 1883.

VALLEE, Rudy (Hubert) (actor & band leader); Island Pond, Vt., July 28, 1901.
VANDERBILT, Alfred G. (horse racing executive); London, Eng., Sept. 22, 1912.
VAN DOREN, Mark (poet & critic); Hope, Ill., June 13, 1894.
VAN DRUTEN, John (dramatist); London, Eng., June 1, 1901.
VAUGHN-WILLIAMS, Ralph (composer); Down Ampney, Eng., Oct. 12, 1872.
VERA-ELLEN (Vera-Ellen Rohe) (actress); Cincinnati, Ohio, Feb. 16.
VIDOR, King (movie director & producer); Galveston, Tex., Feb. 8, 1895.
VILLA-LOBOS, Heitor (composer); Rio de Janeiro, Braz., Mar. 5, 1884.
VLAMINCK, Maurice de (painter); Paris, Fr., Apr. 4, 1876.
VON STROHEIM, Erich (movie director & actor); Vienna, Aus., Sept. 22, 1885.

WAGNER, Hans (John P.) (baseball player); Mansfield, Pa., Feb. 24, 1874.
WAGNER, Robert (actor); Detroit, Mich., Feb. 10, 1930.
WAGNER, Robert F. (Mayor, NYC); New York City, Apr. 20, 1910.
WALCOTT, Jersey Joe (Arnold Cream) (boxer); Merchantiville, N. J., Jan. 31, 1914.
WALKER, Mickey (boxer); Elizabeth, N. J., July 13, 1901.
WALKER, Nancy (Ann Myrtle Swoyer) (actress); Philadelphia, Pa.
WALLACE, DeWitt (publisher); St. Paul, Minn., Nov. 12, 1889.
WALLACE, Henry A. (U. S. statesman); Adair Co., Iowa, Oct. 7, 1888.
WALTARI, Mika (novelist); Helsinki, Fin., Sept. 19, 1908.
WALTER, Bruno (Bruno Walter Schlesinger) (orchestra conductor); Berlin, Ger., Sept. 17, 1876.
WARING, Fred (band leader); Tyrone, Pa., June 9, 1900.
WARNER, Sylvia Townsend (novelist & poet); Harrow-on-the-Hill, Eng., 1893.
WARREN, Earl (U. S. jurist); Los Angeles, Calif., Mar. 19, 1891.
WARREN, Leonard (baritone); New York City, Apr. 21, 1911.
WARREN, Robert Penn (novelist); Guthrie, Ky., Apr. 24, 1905.
WATERS, Ethel (actress & singer); Chester, Pa., Oct. 31, 1900.
WATKINS, Arthur V. (U. S. Senator, Utah); Midway, Utah, Dec. 18, 1886.
WATSON, Thomas J. (industrialist); Campbell, N. Y., Feb. 17, 1874.
WAUGH, Alexander (novelist); London, Eng., July 8, 1898.
WAUGH, Evelyn (novelist); London, 1903.
WAYNE, David (actor); Traverse City, Mich., Jan. 30, 1914.
WAYNE, John (Marion Michael Morrison) (actor); Winterset, Iowa, May 26, 1907.
WEBB, Clifton (actor); Indiana, 1891.
WEBB, Jack (actor); Santa Monica, Calif., Apr. 2, 1920.
WEBSTER, Margaret (actress & director); New York City, Mar. 15, 1905.
WEEKS, Sinclair (Secy. of Commerce, U. S.); West Newton, Mass., June 15, 1893.

WEIR, Ernest T. (industrialist); Pittsburgh, Pa., Aug. 1, 1875.
WEISSMULLER, Johnny (swimmer & actor); Chicago, Ill.
WELKER, Herman (U. S. Senator, Idaho); Cambridge, Idaho, Dec. 11, 1906.
WELLES, Orson (actor & director); Kenosha, Wis., May 6, 1915.
WELTY, Eudora (novelist); Jackson, Miss., Apr. 13, 1909.
WESCOTT, Glenway (novelist); Kewas-kum, Wis., Apr. 11, 1901.
WEST, Mae (actress); Brooklyn, N. Y., Aug. 17, 1892.
WEST, Rebecca (Cicily Fairfield) (novelist); Edinburgh, Scot., Dec. 25, 1892.
WETHERBY, Lawrence W. (Governor, Ky.); Middletown, Ky., Jan. 2, 1908.
WHITE, Hugh L. (Governor, Miss.); McComb, Miss., Aug. 19, 1881.
WHITEMAN, Paul (band leader); Denver, Colo., 1891.
WHITNEY, C. V. (horse racing executive); New York City, Feb. 20, 1899.
WHORF, Richard (actor); Winthrop, Mass.
WIDENER, George D. (horse racing executive); Philadelphia, Pa., Mar. 11, 1889.
WIDMARK, Richard (actor); Sunrise, Minn., Dec. 26, 1914.
WILDE, Cornel (actor); New York City, Oct. 13, 1915.
WILDER, Billy (movie director); Vienna, Aus., June 22, 1906.
WILDER, Thornton (novelist); Madison, Wis., Apr. 17, 1897.
WILDING, Michael (actor); Westcliff, Essex, Eng., July 23, 1912.
WILEY, Alexander (U. S. Senator, Wis); Chippewa Falls, Wis., May 26, 1884.
WILLARD, Jess (boxer); Pottawatomie Co., Kans., Dec. 29, 1883.
WILLIAMS, Emlyn (dramatist); Mostyn, Wales, Nov. 26, 1905.
WILLIAMS, Esther (swimmer & actress); Inglewood, Calif., Aug. 8, 1923.
WILLIAMS, G. Mennen (Governor, Mich.); Detroit, Mich., Feb. 23, 1911.
WILLIAMS, Gluyas (cartoonist); San Francisco, Calif., July 23, 1888.
WILLIAMS, John J. (U. S. Senator, Del.); nr. Frankford, Del., May 17, 1904.
WILLIAMS, Ted (baseball player); San Diego, Calif., Oct. 30, 1918.
WILLIAMS, Tennessee (Thomas L. Williams) (dramatist); Columbus, Miss., Mar. 26, 1914.
WILLIAMS, William Carlos (poet); Rutherford, N. J., Sept. 17, 1883.
WILSON, Charles Edward (industrialist); New York City, Nov. 18, 1886.
WILSON, Charles Erwin (Secy. of Defense, U. S.); Minerva, Ohio, July 18, 1890.
WILSON, Edmund (literary critic); Red Bank, N. J., May 8, 1895.
WILSON, Margaret (novelist); Traer, Iowa, Jan. 16, 1882.
WILSON, Marie (actress); Anaheim, Calif., Aug. 19, 1916.
WINCHELL, Paul (ventriloquist); New York City, Dec. 21, 1923.
WINCHELL, Walter (columnist); New York City, Apr. 7, 1897.
WINDSOR, Duchess of (Bessie Wallis Warfield); Blue Ridge Summit, Pa., June 19, 1896.
WINDSOR, Duke of (formerly King Edward VIII, Gr. Brit.); Richmond Park, Eng., June 23, 1894.
WINNINGER, Charles (actor); Athens, Wis., May 26, 1884.
WINTERS, Shelley (Shirley Schrift) (actress); East St. Louis, Ill., Aug. 18, 1923.
WOOD, Peggy (actress); Brooklyn, N. Y., Feb. 9, 1892.
WOOLLEY, Monte (Edgar) (actor); New York City, Aug. 17, 1888.
WORTMAN, Denys (cartoonist); Saugerties, N. Y., May 1, 1887.
WOUK, Herman (novelist); New York City, May 27, 1915.
WRIGHT, Frank Lloyd (architect); Richland Center, Wis., June 8, 1869.
WRIGHT, Richard (novelist); nr. Natchez, Miss., Sept. 4, 1908.
WRIGHT, Teresa (actress); New York City, Oct. 27, 1918.
WYATT, Jane (actress); Campgaw, N. J., Aug. 12, 1912.
WYETH, Andrew (painter); Chadds Ford, Pa., July 12, 1917.
WYLER, William (movie director); Mulhouse, Fr., July 1, 1902.
WYLIE, Philip (novelist); Beverly, Mass., May 12, 1902.
WYMAN, Jane (Sarah Fulks) (actress); St. Joseph, Mo., Jan. 4, 1914.
WYNN, Ed (Edwin Leopold) (comedian); Philadelphia, Pa., Nov. 9, 1886.
WYNN, Keenan (actor); New York City, July 27, 1916.

YERBY, Frank (novelist); Augusta, Ga., Sept. 5, 1916.
YOSHIDA, Shigeru (Japanese statesman); Tokyo, Jap., Sept. 22, 1878.
YOUNG, Alan (Angus Young) (actor); No. Shields, Northum., Eng., Nov. 19, 1919.
YOUNG, Cy (Denton T.) (baseball player); Gilmore, Ohio, Mar. 29, 1867.
YOUNG, Loretta (Gretchen) (actress); Salt Lake City, Utah, Jan. 6, 1913.
YOUNG, Milton R. (U. S. Senator, N. Dak.); Berlin, N. Dak., Dec. 6, 1897.
YOUNG, Robert (actor); Chicago, Ill., Feb. 22, 1907.
YOUNG, Robert R. (railroad executive); Canadian, Tex., Feb. 14, 1897.
YURKA, Blanche (actress); St. Paul, Minn., June 19, 1893.

ZAHARIAS, Babe (Mildred Didrikson) (golfer); Port Arthur, Tex., June 26, 1913.
ZAHEDI, Fazollah (Iranian statesman); Iran, 1897.
ZANUCK, Darryl F. (movie director); Wahoo, Nebr., Sept. 5, 1902.
ZIMBALIST, Efrem (violinst); Rostov-on-Don, Rus., Apr. 9, 1889.
ZORACH, William (sculptor); Eurburg, Lith., Feb. 28, 1887.
ZUKOR, Adolph (movie producer); Ricse, Hung., Jan. 7, 1873.
ZWEIG, Arnold (novelist); Grosz-Glogau, Silesia, Nov. 10, 1887.

★ WHO WAS WHO ★

Prepared by

A. N. MARQUIS CO., *Publishers of* WHO'S WHO IN AMERICA

For the Presidents of the United States and the Rulers of England, France, Germany and Russia, consult the entry Rulers in the index. In many instances below, the original name or form of the name of this individual is shown in parentheses.

ABELARD, Peter (Pierre Abélard) (philosopher); b. near Nantes, Fr. (1079–1142).
ADAMS, Charles Francis (diplomat); b. Boston, Mass. (1807–1886).
ADAMS, Henry Brooks (historian); b. Boston, Mass. (1838–1918).
ADAMS, James Truslow (historian); b. Brooklyn, N. Y. (1878–1949).
ADAMS, Maude (Maude Kiskadden) (actress); b. Salt Lake City, Utah (1872–1953).
ADAMS, Samuel (American Revolutionary patriot); b. Boston, Mass. (1722–1803).
ADDAMS, Jane (social worker); b. Cedarville, Ill. (1860–1935).
ADE, George (humorist); b. Kentland, Ind. (1866–1944).
ADLER, Alfred (psychoanalyst); b. Vienna, Aus. (1870–1937).
AESCHYLUS (dramatist); b. Eleusis, Attica (525–456 B.C.).
AESOP (fabulist); birthplace unknown (lived c. 600 B.C.).
ALCOTT, Louisa May (novelist); b. Germantown, Pa. (1832–1888).
ALDEN, John (American Pilgrim); b. England (1599?–1687).
ALEXANDER the Great (monarch & conqueror); b. Pella, Macedonia (356–323 B.C.).
ALGER, Horatio (author); b. Revere, Mass. (1834–1899).
ALLEN, Ethan (American Revolutionary soldier); b. Litchfield, Conn. (1739–1789).
ANDERSEN, Hans Christian (fairy-tale writer); b. Odense, Den. (1805–1875).
ANDERSON, Sherwood (author); b. Camden, Ohio (1876–1941).
ANDREYEV, Leonid Nikolaevich (author); b. Orel, Rus. (1871–1919).
ANTHONY, Mark (Marcus Antonius) (statesman); b. Rome (83?–30 B.C.).
ANTHONY, Susan Brownell (woman suffragist); b. Adams, Mass. (1820–1906).
AQUINAS, St. Thomas (philosopher); b. near Aquino, It. (1225?–1274).
ARCHIMEDES (physicist & mathematician); b. Syracuse, Sicily (287?–212 B.C.).
ARISTOPHANES (dramatist); b. Athens (448? 380 B.C.).
ARISTOTLE (philosopher); b. Stagira (384–322 B.C.).
ARLISS, George (actor); b. London, Eng. (1868–1946).
ARNOLD, Benedict (American traitor); b. Norwich, Conn. (1741–1801).
ARNOLD, Matthew (poet & critic); b. Laleham, Mid., Eng. (1822–1888).
ASTOR, John Jacob (financier); b. Waldorf, Ger. (1763–1848).
ATHERTON, Gertrude Franklin (nee Horn) (author); b. San Francisco, Calif. (1857–1948).
ATTILA (King of Huns, called "Scourge of God") (406?–453).
AUDUBON, John James (ornithologist & artist); b. Haiti (1785–1851).
AUER, Leopold (violinist & teacher); b. Veszprim, Hung. (1845–1930).
AUGUSTINE, Saint (Aurelius Augustinus) (philosopher); b. Numidia (354–430).
AUGUSTUS (Gaius Octavius) (Roman emperor); b. Rome (63 B.C.–A.D. 14).
AUSTEN, Jane (novelist); b. Steventon, Hamps., Eng. (1775–1817).

BACH, Johann Sebastian (composer); b. Eisenach, Ger. (1685–1750).
BACON, Francis (philosopher & essayist); b. London, England (1561–1626).
BACON, Roger (philosopher & scientist); b. Ilchester, Som., Eng. (1214?–1294).
BAEDEKER, Karl (travel-guidebook publisher); b. Essen, Ger. (1801–1859).
BALBOA, Vasco Núñez de (explorer); b. Jerez de los Caballeros, Sp. (1475–1517).
BALDWIN, Stanley (British statesman); b. Bewdley, Eng. (1867–1947).
BALZAC, Honoré de (novelist); b. Tours, Fr. (1799–1850).
BARA, Theda (Theodosia Goodman) (actress); b. Cincinnati, Ohio (1890–1955).
BARNUM, Phineas Taylor (showman); b. Bethel, Conn. (1810–1891).
BARRIE, Sir James Matthew (novelist & dramatist); b. Kirriemuir, Forfarshire, Scot. (1860–1937).
BARRY, Philip (dramatist); b. Rochester, N. Y. (1896–1949).
BARRYMORE, John (actor); b. Philadelphia, Pa. (1882–1942).
BARRYMORE, Lionel (actor); b. Philadelphia, Pa. (1878–1954).
BARTÓK, Béla (composer); b. Nagyszentmiklos, Transylvania, Hung. (1881–1945).
BARTON, Clara (Clarissa Harlowe Barton) (social worker); b. Oxford, Mass. (1821–1912).
BAUDELAIRE, Pierre Charles (poet); b. Paris, Fr. (1821–1867).
BEARD, Charles Austin (historian); b. Knightstown, Ind. (1874–1948).
BECKET, Thomas (Archbishop of Canterbury); b. London, Eng. (1118?–1170).
BEDE, Saint (called "The Venerable Bede") (scholar); b. Monkwearmouth, Eng. (673–735).

BEECHER, Henry Ward (clergyman); b. Litchfield, Conn. (1813–1887).
BEERY, Wallace (actor); b. Kansas City, Mo. (1886–1949).
BEETHOVEN, Ludwig van (composer); b. Bonn, Ger. (1779–1827).
BELASCO, David (dramatist & producer); b. San Francisco, Calif. (1854–1931).
BELL, Alexander Graham (inventor); b. Edinburgh, Scot. (1847–1922).
BELLAMY, Edward (author); b. Chicopee, Mass. (1850–1898).
BELLOC, Hilaire (Joseph Hilary Pierre Belloc) (author); b. La Celle, St. Cloud, Fr. (1870–1953).
BELLOWS, George Wesley (painter & lithographer); b. Columbus, Ohio (1882–1925).
BENCHLEY, Robert Charles (humorist); b. Worcester, Mass. (1889–1945).
BENEŠ, Eduard (Czech statesman); b. Kožlany, Bohemia (1884–1948).
BENÉT, Stephen Vincent (poet & story writer); b. Bethlehem, Pa. (1898–1943).
BENÉT, William Rose (poet & novelist); b. Ft. Hamilton, N. Y. (1886–1950).
BENJAMIN, Judah Philip (Confederate statesman); b. St. Thomas, BWI (1811–1884).
BENNETT, Enoch Arnold (novelist & dramatist); b. Hanley, Staffs., Eng. (1867–1931).
BENNETT, James Gordon (editor); b. Keith, Banffshire, Scot. (1795–1872).
BERLIOZ, Louis Hector (composer); b. La Côte-St.-André, Fr. (1803–1869).
BERNHARDT, Sarah (Rosine Bernard) (actress); b. Paris, Fr. (1844–1923).
BEVIN, Ernest (British statesman); b. Somersetshire, Eng. (1884–1951).
BIERCE, Ambrose Gwinnett (journalist); b. Meigs Co., Ohio (1842–?1914).
BISMARCK-SCHÖNHAUSEN, Prince Otto Eduard Leopold von (German statesman); b. Schönhausen, Prus. (1815–1898).
BIZET, Georges (Alexandre César Léopold Bizet) (composer); b. Paris, Fr. (1838–1875).
BLACKSTONE, Sir William (jurist); b. London, Eng. (1723–1780).
BLAKE, William (poet & artist); b. London, Eng. (1757–1827).
BLUM, Léon (French statesman); b. Paris, Fr. (1872–1950).
BOCCACCIO, Giovanni (author); b. Paris, Fr. (1313–1375).
BOLÍVAR, Simón (South American liberator); b. Caracas, Venez. (1783–1830).
BOND, Carrie (nee Jacobs) (composer of songs); b. Janesville, Wis. (1862–1946).
BOONE, Daniel (frontiersman); b. near Reading, Pa. (1734–1820).
BOOTH, Edwin Thomas (actor); b. Bel Air, Md. (1833–1893).
BOOTH, Evangeline Cory (religious leader); b. London, Eng. (1865–1950).
BOOTH, John Wilkes (actor; assassin of Lincoln); b. Hartford County, Md. (1838–1865).
BOOTH, William (called General Booth) (religious leader); b. Nottingham, Eng. (1829–1912).
BORGIA, Cesare (nobleman & soldier); b. Rome (1475?–1507).
BORGIA, Lucrezia (Duchess of Ferrara); b. Rome (1480–1519).
BORODIN, Alexander Porfirevich (composer); b. St. Petersburg, Rus. (1834–1887).
BOSWELL, James (diarist & biographer); b. Edinburgh, Scot. (1740–1795).
BOTTICELLI, Sandro (Alessandro di Mariano dei Filipepi) (painter); b. Florence (1444?–1510).
BOWIE, James (soldier); b. Burke Co., Ga. (1799–1836).
BRAHMS, Johannes (composer); b. Hamburg, Ger. (1833–1897).
BRAILLE, Louis (teacher of blind); b. Coupvray, Fr. (1809–1852).
BRANDEIS, Louis Dembitz (jurist); b. Louisville, Ky. (1856–1941).
BRICE, Fanny (Fannie Borach) (comedienne); b. New York City (1892–1951).
BRISBANE, Arthur (journalist) b. Buffalo, N. Y. (1864–1936).
BRONTË, Charlotte (novelist); b. Thornton, Yorks., Eng. (1816–1855).
BRONTË, Emily Jane (novelist); b. Thornton, Yorks., Eng. (1818–1848).
BROOKE, Rupert (poet); b. Rugby, War., Eng. (1887–1915).
BROUN, Matthew Heywood Campbell (journalist); b. Brooklyn, N. Y. (1888–1939).
BROWN, John (abolitionist); b. Torrington, Conn. (1800–1859).
BROWNING, Elizabeth Barrett (poet); b. Coxhoe Hall, Durham, Eng. (1806–1861).
BROWNING, Robert (poet); b. London, Eng. (1812–1889).
BRUEGHEL, Pieter (painter); b. near Breda, Flanders (1520–1569).
BRUTUS, Marcus Junius (Roman politician) (85?–42 B.C.).
BRYAN, William Jennings (orator & politician); b. Salem, Ill. (1860–1925).
BRYANT, William Cullen (poet & editor); b. Cummington, Mass. (1794–1878).
BUDDHA. *See* Gautama Buddha.
BUFFALO BILL (William Frederick Cody) (scout); b. Scott Co., Iowa (1846–1917).
BUNYAN, John (preacher & author); b. Elstow, Eng. (1628–1688).
BURBANK, Luther (horticulturist); b. Lancaster, Mass. (1849–1926).
BURKE, Edmund (statesman); b. Dublin, Ire. (1729–1797).
BURNS, Robert (poet); b. Alloway, Scot. (1759–1796).
BURR, Aaron (statesman); b. Newark, N. J. (1756–1836).
BUTLER, Nicholas Murray (educator); b. Elizabeth, N. J. (1862–1947).
BUTLER, Samuel (author); b. Langar, Notts., Eng. (1835–1902).
BYRON, George Gordon (6th Baron Byron) (poet); b. London, Eng. (1788–1824).

CABOT, John (Giovanni Caboto) (navigator); b. Genoa (1450–1498).
CABOT, Sebastian (navigator); b. Venice (1476?–1557).
CAESAR, Gaius Julius (Roman statesman); b. Rome (100?–44 B.C.).
CALHOUN, John Caldwell (statesman); b. near Calhoun Mills, S. C. (1782–1850).

CALVIN, John (Jean Chauvin) (religious reformer); b. Noyon, Picardy (1509–1564).
CARDOZO, Benjamin Nathan (jurist); b. New York City (1870–1938).
CARLYLE, Thomas (essayist & historian); b. Ecclefechan, Dumfriesshire, Scot. (1795–1881).
CARNEGIE, Andrew (industrialist); b. Dunfermline, Scot. (1835–1919).
CARROLL, Lewis (Charles Lutwidge Dodgson) (author & mathematician); b. Daresbury, Ches., Eng. (1832–1898).
CARSON, Kit (Christopher) (scout); b. Madison Co., Ky. (1809–1868).
CARUSO, Enrico (Errico) (tenor); b. Naples, It. (1873–1921).
CARVER, George Washington (botanist); b. Missouri (1864–1943).
CASANOVA DE SEINGALT, Giovanni Jacopo (adventurer); b. Venice (1725–1798).
CATHER, Willa Sibert (novelist); b. Winchester, Va. (1876–1947).
CATO, Marcus Porcius (called Cato the Elder) (statesman); b. Tusculum (234–149 B.C.).
CATT, Carrie Chapman (nee Lane) (woman suffragist); b. Ripon, Wis. (1859–1947).
CELLINI, Benvenuto (goldsmith & sculptor); b. Florence (1500–1571).
CERVANTES SAAVEDRA, Miguel de (novelist); b. Alcalá de Henares, Sp. (1547–1616).
CÉZANNE, Paul (painter); b. Aix-en-Provence, Fr. (1839–1906).
CHALIAPIN, Feodor Ivanovitch (basso); b. Kazan, Rus. (1873–1938).
CHAMBERLAIN, Arthur Neville (British statesman); b. Birmingham, Eng. (1869–1940).
CHAMPLAIN, Samuel de (explorer); b. nr. Rochefort, Fr. (1567?–1635).
CHANEY, Lon (actor); b. Colorado Springs, Colo. (1883–1930).
CHARLEMAGNE (Holy Roman Emperor); birthplace unknown (742–814).
CHATTERTON, Thomas (poet); b. Bristol, Eng. (1752–1770).
CHAUCER, Geoffrey (poet); b. London, Eng. (1340?–1400).
CHEKHOV, Anton Pavlovich (dramatist & story writer); b. Taganrog, Rus. (1860–1904).
CHESTERTON, Gilbert Keith (author); b. Kensington, Eng. (1874–1936).
CHIPPENDALE, Thomas (cabinetmaker); b. Otley, Eng. (1718?–1779).
CHOPIN, Frédéric François (composer); b. nr. Warsaw, Pol. (1810–1849).
CICERO, Marcus Tullius (orator & statesman); b. Arpinum, It. 106–43 B.C.).
CLARK, William (explorer); b. Caroline Co., Va. (1770–1838).
CLAY, Henry (statesman); b. Hanover Co., Va. (1777–1852).
CLEMENCEAU, Georges (statesman); b. Mouilleron-en-Pareds, Vendée, Fr. (1841–1929).
CLEMENS, S. L. *See* Twain
CLEOPATRA (Queen of Egypt); b. Alexandria, Egy. (69–30 B.C.).
COBB, Irvin Shrewsbury (humorist); b. Paducah, Ky. (1876–1944).
CODY, W. F. *See* Buffalo Bill.
COHAN, George Michael (actor & dramatist); b. Providence, R. I. (1878–1942).
COHEN, Morris Raphael (philosopher & educator); b. Minsk, Rus. (1880–1947).
COLERIDGE, Samuel Taylor (poet); b. Ottery St. Mary, Dev., Eng. (1772–1834).
COLLETTE (Sidonie-Gabriele Colette) (novelist); b. St.-Sauveur, Fr. (c.1873–1954).
COLUMBUS, Christopher (Cristoforo Colombo) (navigator); b. Genoa (1451–1506).
COMPTON, Karl Taylor (physicist); b. Wooster, Ohio (1887–1954).
CONFUCIUS (K'ung Fu-tzŭ) (philosopher); b. Shantung prov., China (c. 551–479 B.C.).
CONGREVE, William (dramatist); b. nr. Leeds, Eng. (1670–1729).
CONRAD, Joseph (Teodor Józef Konrad Korzeniowski) (novelist); b. Berdichev, Ukraine (1857–1924).
COOPER, James Fenimore (novelist); b. Burlington, N. J. (1789–1851).
COOPER, Peter (industrialist & philanthropist); b. New York City (1791–1883).
COPERNICUS, Nicolaus (Mikolaj Kopernik) (astronomer); b. Torun, Pol. (1473–1543).
CORBETT, James J. (boxer); b. San Francisco, Calif. (1886–1933).
CORNEILLE, Pierre (dramatist); b. Rouen, Fr. (1606–1684).
CORONADO, Francisco Vásquez (explorer); b. Salamanca, Sp. (1510–1554).
COROT, Jean Baptiste Camille (painter); b. Paris, Fr. (1796–1875).
CORREGGIO, Antonio Allegri da (painter); b. Correggio, It. (1494–1534).
CORTÉS (or **CORTEZ**), Hernando (explorer); b. Medellín, Sp. (1485–1547).
COWL, Jane (Jane Cowles) (actress); b. Boston, Mass. (1884–1950).
COWPER, William (poet); b. Great Berkhamstead, Herts., Eng. (1731–1800).
CRANE, Stephen (novelist & poet); b. Newark, N. J. (1871–1900).
CROCE, Benedetto (philosopher); b. Pescasseroli, Aquila, It. (1866–1952).
CROCKETT, Davy (David) (frontiersman); b. Greene Co., Tenn. (1786–1836).
CURIE, Marie (Marja Sklodowska) (physical chemist); b. Warsaw, Pol. (1867–1934).
CURIE, Pierre (chemist); b. Paris, Fr. (1859–1906).
CUSTER, George Armstrong (army officer); b. New Rumley, Ohio (1839–1876).

DAMROSCH, Walter Johannes (orchestra conductor); b. Breslau, Ger. (1862–1950).
DANA, Charles Anderson (editor); b. Hinsdale, N. H. (1819–1897).
D'ANNUNZIO, Gabriele (soldier & author); b. Francaville al Mare, Pescara, It. (1863–1938).
DANTE (or **DURANTE**) **ALIGHIERI** (poet); b. Florence (1265–1321).
DANTON, Georges Jacques (French Revolutionary leader); b. Arcis-sur-Aube, Fr. (1759–1794).
DARROW, Clarence Seward (lawyer); b. Kinsman, Ohio (1857–1938).
DARWIN, Charles Robert (naturalist); b. Shrewsbury, Shrops., Eng. (1809–1882).
DAUMIER, Honoré (caricaturist); b. Marseille, Fr. (1808–1879).
DAVID (King of Israel & Judah) (died c.973 B.C.).

DAVIDSON, Jo (sculptor); b. New York City (1883–1952).
Davis, Jefferson (Pres. of Confederacy); b. Christian (now Todd) Co., Va. (1808–1889).
DAVIS, John William (lawyer); b. Clarksburg, Va. (1873–1955).
DEBS, Eugene Victor (Socialist leader); b. Terre Haute, Ind. (1855–1926).
DEBUSSY, Achille Claude (composer); b. St. Germain-en-Laye, Fr. (1862–1918).
DEFOE, Daniel (novelist); b. London, Eng. (1659?–1731).
DEGAS, Hilaire Germain Edgar (painter); b. Paris, Fr. (1834–1917).
DEMOSTHENES (orator); b. Athens (385?–322 B.C.).
DESCARTES, René (philosopher & mathematician); b. La Haye, Fr. (1596–1650).
DE SOTO, Hernando (explorer); b. Barcarrota, Sp. (1500?–1542).
DEWEY, George (naval officer); b. Montpelier, Vt. (1837–1917).
DEWEY, John (philosopher & educator); b. Burlington, Vt. (1859–1952).
DICKENS, Charles John Huffam (novelist); b. Portsmouth, Hamps., Eng. (1812–1870).
DICKINSON, Emily Elizabeth (poet); b. Amherst, Mass. (1830–1886).
DIOGENES (philosopher); b. Sinope, Asia Minor (412?–323 B.C.).
DISRAELI, Benjamin (statesman); b. London, Eng. (1804–1881).
DODGSON, C. L. *See* Carroll, Lewis.
DONNE, John (poet); b. London, Eng. (1573–1631).
DOSTOEVSKI, Fyodor Mikhailovich (novelist); b. Moscow, Rus. (1821–1881).
DOUGLAS, Lloyd Cassel (novelist); b. Columbia City, Ind. (1877–1951).
DOUGLAS, Stephen Arnold (politician); b. Brandon, Vt. (1813–1861).
DOYLE, Sir Arthur Conan (novelist & spiritualist); b. Edinburgh, Scot. (1859–1930).
DRAKE, Sir Francis (navigator); b. Tavistock, Devons., Eng. (1545?–1596).
DREISER, Theodore (novelist); b. Terre Haute, Ind. (1871–1945).
DRESSLER, Marie (Marie Koerber) (actress); b. Cobourg, Ont., Can. (1873–1934).
DREYFUS, Alfred (French army officer); b. Alsace (1859–1935).
DRYDEN, John (poet); b. Northamptonshire, Eng. (1631–1700).
DUMAS, Alexandre (called Dumas père) (novelist); b. Villers-Cotterets, Fr. (1802–1870).
DUMAS, Alexandre (called Dumas fils) (novelist); b. Paris, Fr. (1824–1895).
DU MAURIER, George Louis Palmella Busson (novelist); b. Paris, Fr. (1834–1896).
DUNCAN, Isadora (dancer); b. San Francisco, Calif. (1878–1927).
DUSE, Eleonora (actress); b. Chioggia, It. (1859–1924).
DVOŘÁK, Antonin (composer); b. Mühlhausen, Bohemia (1841–1904).

EARHART, Amelia (aviator); b. Atchison, Kans. (1898–1937).
EDDY, Mary Morse (nee Baker) (religious leader); b. Bow, N. H. (1821–1910).
EDISON, Thomas Alva (inventor); b. Milan, Ohio (1847–1931).
EDMAN, Irwin (philosopher); b. New York City (1896–1954).
EHRLICH, Paul (bacteriologist); Silesia prov., Prus. (1854–1915).
EINSTEIN, Albert (physicist); b. Ulm, Ger. (1879–1955).
ELGAR, Sir Edward (composer); b. Worcester, Eng. (1857–1934).
ELIOT, George (Mary Ann Evans) (novelist); b. Warickshire, Eng. (1819–1880).
EMERSON, Ralph Waldo (philosopher & poet); b. Boston, Mass. (1803–1882).
ENGELS, Friedrich (Socialist writer); b. Barmen, Ger. (1820–1895).
EPICURUS (philosopher); b. Samos (342?–270 B.C.).
ERASMUS, Desiderius (Gerhard Gerhards) (scholar); b. Rotterdam (1466?–1536).
ERICSON, Leif (navigator) (c.10th cent. A.D.).
ERSKINE, John (educator & author); b. New York City (1879–1951).
EUCLID (mathematician) (c.300 B.C.).
EURIPIDES (dramatist); b. Salamis (c. 484–407 B.C.).

FAIRBANKS, Douglas (actor); b. Denver, Colo. (1883–1939).
FALLA, Manuel de (composer); b. Cadiz, Sp. (1876–1946).
FARADAY, Michael (physicist); b. Newington, Sur., Eng. (1791–1867).
FERMI, Enrico (physicist); b. Rome, It. (1901–1954).
FIELD, Eugene (poet); b. St. Louis, Mo. (1850–1895).
FIELDING, Henry (novelist); b. nr. Glastonbury, Som., Eng. (1707–1754).
FIELDS, W. C. (Claude William Dukenfield) (actor); b. Philadelphia, Pa. (1880-1946).
FISKE, Minnie Maddern (nee Davey) (actress); b. New Orleans, La. (1865–1932).
FITZGERALD, Francis Scott Key (novelist); b. St. Paul, Minn. (1896–1940).
FITZSIMMONS, Robert Prometheus (boxer); b. Cornwall, Eng. (1862–1917).
FLAUBERT, Gustave (novelist); b. Rouen, Fr. (1821–1880).
FLEMING, Sir Alexander (bacteriologist); b. Lochfield, Scot. (1881–1955).
FORD, Henry (industrialist); b. Greenfield, Mich. (1863–1947).
FORRESTAL, James Vincent (statesman); b. Beacon, N. Y. (1892–1949).
FOSTER, Stephen Collins (composer); b. nr. Pittsburgh, Pa. (1826–1864).
FRANCE, Anatole (Jacques Anatole François Thibault) (author); b. Paris (1844–1924).
FRANCK, César Auguste (composer); b. Liége, Belg. (1822–1890).
FRANKLIN, Benjamin (statesman & scientist); b. Boston, Mass. (1706–1790).
FRAZER, Sir James George (anthropologist); b. Glasgow, Scot. (1854–1941).
FREUD, Sigmund (psychoanalyst); b. Freiberg, Moravia (1856–1939).
FULTON, Robert (inventor); b. Lancaster Co., Pa. (1765–1815).

GAINSBOROUGH, Thomas (painter); b. Sudbury, Suff., Eng. (1727–1788).

GALILEI, Galileo (astronomer & physicist); b. Pisa, It. (1564–1642).
GALSWORTHY, John (novelist & dramatist); b. Coombe, Sur., Eng. (1867–1933).
GANDHI, Mohandas Karamchand (called Mahatma Gandhi) (Hindu leader); b. Porbandar, India (1869–1948).
GARIBALDI, Giuseppe (Italian nationalist leader); b. Nice, Fr. (1807–1882).
GARRICK, David (actor); b. Hereford, Heref., Eng. (1717–1779).
GARRISON, William Lloyd (abolitionist); b. Newburyport, Mass. (1805–1879).
GAUGUIN, Eugène Henri Paul (painter); b. Paris, Fr. (1848–1903).
GAUTAMA BUDDHA (Prince Siddhartha) (philosopher); b. Kapilavastu, India (563?–?483 B.C.).
GEHRIG, Lou (Henry Louis Gehrig) (baseball player); b. New York City (1903–1941).
GENGHIS KHAN (Temujin) (conqueror); b. nr. Lake Baikal in Asia (1162–1227).
GEORGE, Henry (economist); b. Philadelphia, Pa. (1839–1897).
GERONIMO (Goyathlay) (Apache chieftain); b. Arizona (1829–1909).
GERSHWIN, George (composer); b. Brooklyn, N. Y. (1898–1937).
GIBBON, Edward (historian); b. Putney, Eng. (1737–1794).
GIBSON, Charles Dana (illustrator); b. Roxbury, Mass. (1867–1944).
GIDE, André (author); b. Paris, Fr. (1869–1951).
GILBERT, Sir William Schwenck (dramatist & librettist); b. London, Eng. (1836–1911).
GIOTTO di Bondone (painter); b. Vespignamo, It. (1276?–?1337).
GLADSTONE, William Ewart (statesman); b. Liverpool, Eng. (1809–1898).
GLUCK, Christoph Willibald (composer); b. Erasbach, Bavaria (1714–1787).
GOEBBELS, Joseph Paul (Nazi leader); b. Rheydt, Ger. (1897–1945).
GOERING, Hermann (Nazi leader); b. Rosenheim, Bavaria (1893–1946).
GOETHALS, George Washington (engineer); b. Brooklyn, N. Y. (1858–1928).
GOETHE, Johann Wolfgang von (poet); b. Frankfurt am Main, Ger. (1749–1832).
GOGH, Vincent van (painter); b. Groot-Zundert, Brabant, Hol. (1853–1890).
GOGOL, Nikolai Vasilievich (novelist); b. nr. Mirgorod, Poltava, Ukr. (1809–1852).
GOLDSMITH, Oliver (dramatist & poet); b. County Longford, Ire. (1728–1774).
GOMPERS, Samuel (labor leader); b. London, Eng. (1850–1924).
GOODYEAR, Charles (inventor); b. New Haven, Conn. (1800–1860).
GORKI, Maxim (Alexei Maximovich Peshkov) (author); b. Nizhni Novgorod, Rus. (1868–1936).
GOULD, Jay (Jason) (financier); b. Roxbury, N. Y. (1836–1892).
GOUNOD, Charles François (composer); b. Paris, Fr. (1818–1893).
GOYA Y LUCIENTES, Francisco José de (painter); b. Fuendetodos, Sp. (1746–1828).
GRAY, Thomas (poet); b. London, Eng. (1716–1771).
GRECO, El (Domenicos Theotocopoulos) (painter); b. Candia, Crete (c.1542–1614).
GREELEY, Horace (journalist & politician); b. Amherst, N. H. (1811–1872).
GRIEG, Edvard Hagerup (composer); b. Bergen, Nor. (1843–1907).
GRIFFITH, David Lewelyn Wark (movie producer); b. La Grange, Ky. (1875–1948).
GRIMM, Jacob (mythologist); b. Hanau, Ger. (1785–1863).
GRIMM, Wilhelm (mythologist); b. Hanau, Ger. (1786–1859).
GUTENBERG, Johann (printer); b. Mainz, Ger. (1400?–?1468).

HALE, Nathan (American Revolutionary officer); b. Coventry, Conn. (1755–1776).
HALS, Franz (painter); b. Antwerp, Hol. (1580?–1666).
HAMILTON, Alexander (statesman); b. Leeward Is. (1757?–1804).
HAMSUN, Knut (Knut Pedersen) (novelist); b. Lom, Nor. (1859–1952).
HANCOCK, John (statesman); b. Braintree, Mass. (1737–1793).
HANDEL, George Frederick (composer); b. Halle, Ger. (1685–1759).
HANNIBAL (Carthaginian general) (247–183 B.C.).
HARDY, Thomas (novelist); b. Dorsetshire, Eng. (1840–1928).
HARLOW, Jean (Harlean Carpenter) (actress); b. Kansas City, Mo. (1911–1937).
HARTE, Bret (Francis Brett Harte) (author); b. Albany, N. Y. (1836–1902).
HARVEY, William (physician); b. Folkestone, Kent, Eng. (1578–1657).
HAWTHORNE, Nathaniel (novelist); b. Salem, Mass. (1804–1864).
HAY, John Milton (statesman); b. Salem, Ind. (1838–1905).
HAYDN, Franz Joseph (composer); b. Rohrau, Aus. (1732–1809).
HEARN, Lafcadio (author); b. Santa Maura, Ionian Is. (1850–1904).
HEARST, William Randolph (publisher); b. San Francisco, Calif. (1863–1951).
HEGEL, Georg Wilhelm Friedrich (philosopher); b. Stuttgart, Ger. (1770–1831).
HEINE, Heinrich (Harry) (poet); b. Düsseldorf, Ger. (1797–1856).
HENRY, O. (William Sydney Porter) (story writer); b. Greensboro, N. C. (1862–1910).
HENRY, Patrick (statesman); b. Hanover Co., Va. (1736–1799).
HEPPLEWHITE, George (furniture designer) b. England (?–1786).
HERBERT, Victor (composer); b. Dublin, Ire. (1859–1924).
HEROD (Herdoes) (called Herod the Great) (King of Judea) (73?–4 B.C.).
HERODOTUS (historian); b. Halicarnassus, Asia Minor (c.484–425 B.C.).
HINDENBURG, Paul von (Paul Ludwig Hans Anton von Beneckendorff und von Hindenburg) (statesman); b. Posen, Prus. (1847–1934).
HIPPOCRATES (physician); b. Kos, Dodecanese (460?–?377 B.C.).
HITLER, Adolf (Adolf Schicklgruber) (German chancellor); b. Branau, Aus. (1889–1945).

HOGARTH, William (painter & engraver); b. London, Eng. (1697–1764).
HOLBEIN, Hans (the Elder) (painter); b. Augsburg, Bavaria (1465?–1524).
HOLBEIN, Hans (the Younger) (painter); b. Augsburg, Bavaria (1497?–1543).
HOLMES, Oliver Wendell (author); b. Cambridge, Mass. (1809–1894).
HOLMES, Oliver Wendell (jurist); b. Boston, Mass. (1841–1935).
HOMER (Greek poet) (c.850 B.C.?).
HOMER, Winslow (painter); b. Boston, Mass. (1836–1910).
HOOD, Thomas (poet); b. London, Eng. (1799–1845).
HORACE (Quintus Horatius Flaccus) (poet); b. Venosa, Lucania (65–8 B.C.).
HOUDINI, Harry (Ehrich Weiss) (magician); b. Appleton, Wis. (1874–1926).
HOUSMAN, Alfred Edward (poet); b. Fockburg, Worcs., Eng. (1859–1936).
HOUSTON, Samuel (political leader); b. Rockbridge Co., Va. (1793–1863).
HOWARD, Leslie (actor); b. London, Eng. (1893–1943).
HOWE, Elias (inventor); b. Spencer, Mass. (1819–1867).
HOWELLS, William Dean (author); b. Martin's Ferry, Ohio (1837–1920).
HUDSON, Henry (English navigator) (?–1611).
HUGHES, Charles Evans (jurist); b. Glens Falls, N. Y. (1862–1948).
HUGO, Victor Marie (author); b. Besançon, Fr. (1802–1885).
HULL, Cordell (U. S. statesman); b. Overton Co., Tenn. (1871–1955).
HUME, David (philosopher); b. Edinburgh, Scot. (1711–1776).
HUNT, Leigh (essayist & poet); b. Southgate, Midx., Eng. (1784–1859).
HUSTON, Walter (actor); b. Toronto, Ont., Can. (1884–1950).
HUXLEY, Thomas Henry (biologist); b. Ealing, Eng. (1825–1895).

IBSEN, Henrik (dramatist); b. Skien, Nor. (1828–1906).
INNESS, George (painter); b. nr. Newburgh, N. Y. (1825–1894).
IRVING, Washington (author); b. New York City (1783–1859).

JACKSON, Thomas Jonathan (general); b. Clarksburg, Va. (now W. Va.) (1824–1863).
JAMES, Henry (novelist); b. New York City (1843–1916).
JAMES, Jesse Woodson (outlaw); b. Clay Co., Mo. (1847–1882).
JAMES, William (psychologist); b. New York City (1842–1910).
JAY, John (statesman & jurist); b. New York City (1745–1829).
JEFFERSON, Joseph (actor); b. Philadelphia, Pa. (1829–1905).
JEFFRIES, James J. (boxer); b. Carroll, Ohio (1875–1953).
JENNER, Edward (physician); Berkeley, Glos., Eng. (1749–1823).
JOAN OF ARC (Jeanne d'Arc) (heroine); b. Domremy-la-Pucelle, Fr. (1412–1431).
JOHNSON, Jack (John A.) (boxer); b. Galveston, Tex. (1878–1946).
JOHNSON, Samuel (lexicographer & author); b. Lichfield, Staffs., Eng. (1709–1784).
JOLLIET (or JOLIET), Louis (explorer); b. Beaupré, Can. (1645–1700).
JOLSON, Al (Asa Yoelson) (actor & singer); b. St. Petersburg, Rus. (1886–1950).
JONES, John Paul (John Paul) (naval officer); b. Scotland (1747–1792).
JONES, Robert Edmond (stage designer); b. Milton, N. H. (1887–1954).
JONSON, Ben (Benjamin) (poet & dramatist); b. Westminster, Eng. (1573?–1637).
JOYCE, James (novelist); b. Dublin, Ire. (1882–1941).
JUÁREZ, Benito Pablo (statesman); b. Guelatao, Oaxaca, Mex. (1806–1872).

KANT, Immanuel (philosopher); b. Königsberg, Prus. (1724–1804).
KEATS, John (poet); b. London, Eng. (1795–1821).
KEMAL ATATÜRK (Mustafa Kemal) (statesman); b. Salonika, Turk. (1881–1938).
KEPLER, Johannes (astronomer); b. Weil, Württemberg, Ger. (1571–1630).
KERN, Jerome David (composer); b. New York City (1885–1945).
KEY, Francis Scott (lawyer); b. Frederick (now Carroll) Co., Md. (1779–1843).
KIDD, William (called Capt. Kidd) (pirate); b. Greenock, Scot. (1645?–1701).
KILMER, Alfred Joyce (poet); b. New Brunswick, N. J. (1886–1918).
KIPLING, Rudyard (author); b. Bombay, India (1865–1936).
KNOX, John (religious reformer); b. Haddington, E. Lothian, Scot. (1505–1572).
KOSCIUSKO, Thaddeus (Tadeusz Andrzej Bonawentura Kościuszko) (military officer); b. prov. of Lithuania, Pol. (1746–1817).
KOUSSEVITZKY, Serge (Sergei) Alexandrovitch (orchestra conductor); b. Russia (1874–1951).
KUBLAI KHAN (Mongol conqueror) (1216–1294).

LAFAYETTE, Marquis de (Marie Joseph Paul Yves Roch Gilbert du Motier) (military officer); b. Auvergne, Fr. (1757–1834).
LA FOLLETTE, Robert Marin (politician); b. Primrose, Wis. (1855–1925).
LA GUARDIA, Fiorello Henry (politician); b. New York City (1882–1947).
LAMARCK, Chevalier de (Jean Baptiste Pierre Antoine de Monet) (naturalist); b. Bazantin, Picardy (1744–1829).
LAMB, Charles (essayist); b. London, Eng. (1775–1834).
LANDIS, Kenesaw Mountain (jurist); b. Millville, Ohio (1866–1944).
LANGTRY, Lily (nee Emily Le Breton) (actress); b. island of Jersey (1852–1929).
LANIER, Sidney (poet); b. Macon, Ga. (1842–1881).
LAO-TZU (or LAO-TSE) (Li Erh) (philosopher); b. Honan prov., China (c.604–531 B.C.).
LARDNER, Ring (Ringgold Wilmer Lardner) (story writer); b. Niles, Mich. (1885–1933).
LA SALLE, Sieur de (Robert Cavelier) (explorer); b. Rouen, Fr. (1643–1687).

LAUDER, Sir Harry (Harry MacLennan) (singer); b. Portobello, Scot. (1870–1950).
LAVOISIER, Antoine Laurent (chemist); b. Paris, Fr. (1743–1794).
LAWRENCE, David Herbert (novelist); b. Nottingham, Eng. (1885–1930).
LAWRENCE, Gertrude (Gertrud Klasen) (actress); b. London, Eng. (1900–1952).
LAWRENCE OF ARABIA (Thomas Edward Lawrence; later, Shaw); (author & soldier); b. Portmadoc, Wales (1888–1935).
LEAR, Edward (nonsense poet); b. London, Eng. (1812–1888).
LEE, Robert Edward (Confederate general); b. Stratford Estate, Va. (1807–1870).
LEHÁR, Franz (composer); b. Komárom, Hung. (1870–1948).
LENIN, Nikolai (Vladimir Ilich Ulyanov) (statesman); b. Simbirsk, Rus. (1870–1924).
LEONARD, Benny (Benjamin Leiner) (boxer); b. New York City (1896–1947).
LEWIS, Meriwether (explorer); b. Albemarle Co., Va. (1774–1809).
LEWIS, Sinclair (novelist); b. Sauk Centre, Minn. (1885–1951).
LIND, Jenny (Johanna Maria Lind) (soprano); b. Stockholm, Swed. (1820–1887).
LINDSAY, Nicholas Vachel (poet); b. Springfield, Ill. (1879–1931).
LISTER, Joseph (surgeon); b. Upton, Essex, Eng. (1827–1912).
LISZT, Franz (composer & pianist); b. Raiding, Hung. (1811–1886).
LIVINGSTONE, David (missionary & explorer); b. Lanarkshire, Scot. (1813–1873).
LLOYD GEORGE, David (statesman); b. Manchester, Eng. (1863–1945).
LOCKE, John (philosopher); b. Somersetshire, Eng. (1632–1704).
LODGE, Henry Cabot (legislator); b. Boston, Mass. (1850–1924).
LOMBARD, Carole (Carol Jane Peters) (actress); b. Ft. Wayne, Ind. (1908–1942).
LOMBROSO, Cesare (criminologist); b. Verona, It. (1836–1909).
LONDON, Jack (novelist); b. San Francisco, Calif. (1876–1916).
LONG, Huey Pierce (politician); b. Winnfield, La. (1893–1935).
LONGFELLOW, Henry Wadsworth (poet); b. Portland, Maine (1807–1882).
LOWELL, Amy (poet); b. Brookline, Mass. (1874–1925).
LOWELL, James Russell (poet); b. Cambridge, Mass. (1819–1891).
LOYOLA, St. Ignatius of (Inigo de Onez y Loyola) (founder of Jesuits); b. Gúipuzcoa prov., Sp. (1491–1556).
LUBITSCH, Ernst (movie director); b. Berlin, Ger. (1892–1947).
LUDENDORFF, Erich Friedrich Wilhelm (general); b. Kruszevnia, Posen, Ger. (1865–1937).
LUTHER, Martin (religious reformer); b. Eisleben, Ger. (1483–1546).

MACAULAY, Thomas Babington (author); b. Leicestershire, Eng. (1800–1859).
MacDONALD, James Ramsay (statesman); b. Lossiemouth, Scot. (1866–1937).
MacDOWELL, Edward Alexander (composer); b. New York City (1861–1908).
MACHIAVELLI, Niccolò (political philosopher); b. Florence (1469–1527).
MAETERLINCK, Count Maurice (author); b. Ghent, Belg. (1862–1949).
MAGELLAN, Ferdinand (Fernando de Magalhães) (navigator); b. Sabrosa, Port. (1480?–1521).
MAHAN, Alfred Thayer (naval historian); b. West Point, N. Y. (1840–1914).
MAHLER, Gustav (composer & conductor); b. Kalischt, Bohemia (1860–1911).
MANET, Édouard (painter); b. Paris, Fr. (1832–1883).
MANN, Horace (educator); b. Franklin, Mass. (1796–1859).
MANN, Thomas (novelist); b. Lübeck, Ger. (1875–1955).
MANSFIELD, Katherine (story writer); b. Wellington, N. Z. (1888–1923).
MARAT, Jean Paul (French Revolutionist); b. Boudry, Neuchâtel, Switz. (1743–1793).
MARCONI, Guglielmo (inventor); b. Bologna, It. (1874–1937).
MARCUS AURELIUS (Marcus Annius Verus) (Roman emperor); b. Rome (121–180).
MARIE ANTOINETTE (Josèphe Jeanne Marie Antoinette) (Queen of France); b. Vienna, Aus. (1755–1793).
MARKHAM, Charles Edwin (poet); b. Oregon City, Oreg. (1852–1940).
MARLOWE, Christopher (dramatist); b. Canterbury, Eng. (1564–1593).
MARLOWE, Julia (Sarah Frost) (actress); b. Cumberlandshire, Eng. (1866–1950).
MARQUETTE, Jacques (missionary & explorer); b. Laon, Fr. (1637–1675).
MARSHALL, John (jurist); b. nr. Germantown, Va. (1755–1835).
MARX, Karl (Socialist writer); b. Treves, Prus. (1818–1883).
MARY STUART (Queen of Scotland); b. Linlithgow, Scot. (1542–1587).
MASARYK, Thomas Garrigue (statesman); b. Moravia (1850–1937).
MASSENET, Jules Émile Frédéric (composer); b. Montaud, Fr. (1832–1912).
MASTERS, Edgar Lee (poet); b. Garnett, Kans. (1869–1950).
MATISSE, Henri (painter); b. Cateau, Fr. (1869–1954).
MAUPASSANT, Henri René Albert Guy de (story writer); b. Fr. (1850–1893).
MAXIMILIAN (Ferdinand Maximilian Joseph) (Emperor of Mexico); b. Vienna, Aus. (1832–1867).
MAXWELL, James Clerk (physicist); b. Edinburgh, Scot. (1831–1879).
McCORMACK, John (tenor); b. Athlone, Ire. (1884–1945).
McCORMICK, Cyrus Hall (inventor); b. Rockbridge Co., Va. (1809–1884).
McCORMICK, Robert Rutherford (publisher); b. Chicago, Ill. (1880–1955).
McGRAW, John J. (baseball manager); b. Truxton, N. Y. (1875–1934).
MEDICI, Lorenzo de' (called Lorenzo the Magnificent) (Florentine ruler); b. Florence (1449–1492).
MELBA, Nellie (Helen Porter Mitchell) (soprano); b. nr. Melbourne, Australia (1861–1931).

MELLON, Andrew William (financier); b. Pittsburgh, Pa. (1855–1937).
MELVILLE, Herman (novelist); b. New York City (1819–1891).
MENDEL, Gregor Johann (botanist); b. Heinzendorf, Silesia (1822–1884).
MENDELEYEV, Dmitri Ivanovich (chemist); b. Tobolsk, Siberia (1834–1907).
MENDELSSOHN-BARTHOLDY, Jakob Ludwig Felix (composer); b. Hamburg, Ger. (1809–1847).
MESMER, Franz Anton (physician); b. Weil, Aus. (1734–1815).
METTERNICH, Prince Klemens Wenzel Nepomuk Lothar von (statesman); b. Coblenz, Aus. (1773–1859).
MEYERBEER, Giacomo (Jakob Liebmann Beer) (composer); b. Berlin, Ger. (1791–1864).
MICHELANGELO BUONARROTI (painter & sculptor); b. Caprese, Tuscany, It. (1475–1564).
MILL, John Stuart (philosopher); b. London, Eng. (1806–1873).
MILLAY, Edna St. Vincent (poet); b. Rockland, Maine (1892–1950).
MILLER, Glenn (band leader); b. Clarinda, Iowa (1909?–1944).
MILLIKAN, Robert Andrews (physicist); b. Morrison, Ill. (1868–1953).
MILTON, John (poet); b. London, Eng. (1608–1674).
MINUIT, Peter (Governor of New Amsterdam); b. Wesel, Rhenish Prussia (1580–1638).
MITCHELL, Margaret (novelist); b. Atlanta, Ga. (1900–1949).
MOHAMMED (prophet); b. Mecca, Arabia (570–632).
MOLIÈRE (Jean Baptiste Poquelin) (dramatist); b. Paris, Fr. (1622–1673).
MOLNÁR, Ferenc (dramatist); b. Budapest, Hung. (1878–1952).
MONET, Claude (painter); b. Paris, Fr. (1840–1926).
MONTAIGNE, Michel Eyquem de (essayist); b. nr. Bordeaux, Fr. (1533–1592).
MONTEZUMA II (Aztec emperor); b. Mexico (1480?–1520).
MOORE, George (novelist); b. County Mayo, Ire. (1852–1933).
MOORE, Thomas (poet); b. Dublin, Ire. (1779–1852).
MORE, Sir Thomas (statesman & author); b. London, Eng. (1478–1535).
MORGAN, Helen (singer); b. Danville, Ohio (1900?–1941).
MORGAN, John Pierpont (financier); b. Hartford, Conn. (1837–1913).
MORSE, Samuel Finley Breese (painter & inventor); b. Charlestown, Mass. (1791–1872).
MOUSSORGSKY, Modest Petrovich (composer); b. Karev, Rus. (1835–1881).
MOZART, Wolfgang Amadeus (Johannes Chrysostomus Wolfgangus Theophilus Mozart) (composer); b. Salzburg, Aus. (1756–1791).
MURILLO, Bartolomé Esteban (painter); b. Seville, Sp. (1617–1682).
MUSSOLINI, Benito (Italian dictator); b. Dovia, Forlì, It. (1883–1945).

NAPOLEON BONAPARTE (Emperor of the French); b. Ajaccio, Corsica (1769–1821).
NAST, Thomas (cartoonist); b. Landau, Ger. (1840–1902).
NATION, Carry Amelia (temperance leader); b. Garrard Co., Ky. (1846–1911).
NELSON, Horatio (naval officer); b. Burnham Thorpe, Norf., Eng. (1758–1805).
NERO (Nero Claudius Caesar Drusus Germanicus) (Roman emperor); b. Antium, Latium, It. (A.D. 37–68).
NEWTON, Sir Isaac (mathematician & scientist); b. nr. Grantham, Lincs., Eng. (1642–1727).
NIETZSCHE, Friedrich Wilhelm (philosopher); b. nr. Lützen, Saxony (1844–1900).
NIGHTINGALE, Florence (nurse); b. Florence, It. (1820–1910).
NIJINSKY, Waslaw (dancer); b. Kiev, Rus. (1890–1950).
NOBEL, Alfred Bernhard (industrialist); b. Stockholm, Swed. (1833–1896).
NOSTRADAMUS (Michel de Notredame) (astrologer); b. St. Remi, Fr. (1503–1566).

OCHS, Adolph Simon (publisher); b. Cincinnati, Ohio (1858–1935).
OFFENBACH, Jacques (composer); b. Cologne, Ger. (1819–1880).
OMAR KHAYYÁM (poet & astronomer); b. Nishapur, Khurasan, Persia (died c. 1123).
O'NEILL, Eugene Gladstone (dramatist); b. New York City (1888–1953).
OROZCO, José Clemente (painter); b. Zapotlán, Jalisco, Mex. (1883–1949).
OSLER, Sir William (physician); b. Bondhead, Ont., Can. (1849–1919).
OVID (Publius Ovidius Naso) (poet); b. Sulmona, It. (43 B.C.–?A.D. 17).

PADEREWSKI, Ignace Jan (pianist & statesman); b. Podolia prov., Pol. (1860–1941).
PAGANINI, Nicolò (violinist); b. Genoa, It. (1782–1840).
PAINE, Thomas (political philosopher); b. Thetford, Eng. (1737–1809).
PARNELL, Charles Stewart (Irish nationalist leader); b. Avondale, Wicklow, Ire. (1822–1895).
PASCAL, Blaise (philosopher); b. Clermont, Fr. (1623–1662).
PASTEUR, Louis (chemist); b. Dole, Jura, Fr. (1822–1895).
PAVLOV, Ivan Petrovich (physiologist); b. Ryazan dist., Rus. (1849–1936).
PAVLOVA, Anna (dancer); b. St. Petersburg, Rus. (1885–1931).
PEARY, Robert Edwin (explorer); b. Cresson, Pa. (1856–1920).
PENN, William (American colonist); b. London, Eng. (1644–1718).
PEPYS, Samuel (diarist); b. Cambridge, Eng. (1633–1703).
PERICLES (statesman); b. Athens (died 429 B.C.).
PERÓN, María Eva Duarte de (political leader); b. Los Toldos, Arg. (1919–1952).
PERSHING, John Joseph (general); b. Linn Co., Mo. (1860–1948).
PETRARCH (Francesco Petrarca) (poet); b. Arezzo, It. (1304–1374).

PIKE, Zebulon Montgomery (explorer); b. Lamberton, N. J. (1779–1813).
PIRANDELLO, Luigi (dramatist & novelist); b. nr. Girgenti, Sicily (1867–1936).
PITT, William ("Younger Pitt") (statesman); b. nr. Bromley, Eng. (1759–1806).
PIZARRO, Francisco (explorer); b. Trujillo, Sp. (1470?–1541).
PLATO (Aristocles) (philosopher); b. Athens (?) (427?–347 B.C.).
PLUTARCH (biographer); b. Chaeronea, Boeotia (A.D. 46?–?120).
POCAHONTAS (Matoaka) (American Indian princess); b. Virginia (?) (1595?–1617).
POE, Edgar Allan (poet & story writer); b. Boston, Mass. (1809–1849).
POLO, Marco (traveler); b. Venice (1254?–?1324).
POMPEY (Gnaeua Pompeius Magnus) (general); b. Rome (?) (106–48 B.C.).
PONCE de LEÓN, Juan (explorer); b. Servas, Sp. (1460? 1521).
POPE, Alexander (poet); b. London, Eng. (1688–1744).
POST, Wiley (aviator); b. Texas (1900–1935).
PRIESTLEY, Joseph (chemist); b. nr. Leeds, Eng. (1733–1804).
PROKOFIEFF, Sergie Sergeevich (composer); b. St. Petersburg, Rus. (1891–1953).
PROUST, Marcel (novelist); b. Paris, Fr. (1871–1922).
PTOLEMY (Claudius Ptolemaeus) (astronomer & geographer); b. Ptolemais Hermii (2nd century A.D.).
PUCCINI, Giacomo (composer); b. Lucca, It. (1858–1924).
PULITZER, Joseph (publisher); b. Makó, Hung. (1847–1911).
PULITZER, Joseph (publisher); b. New York City (1885–1955).
PUSHKIN, Alexander Sergeevich (poet & dramatist); b. Moscow, Rus. (1799–1837).
PYLE, Ernest Taylor (journalist); b. Wilmington, Del. (1900–1945).
PYTHAGORAS (mathematician & philosopher); b. Samos (6th century B.C.).

RABELAIS, Francois (satirist); b. nr. Chinon, Fr. (1494?–1553).
RACHMANINOFF, Sergei Wassilievitch (pianist & composer); b. Oneg Estate, Novgorod, Rus. (1873–1943).
RACINE, Jean Baptiste (dramatist); b. La Ferté-Milon, Fr. (1639–1699).
RALEIGH, Sir Walter (courtier & navigator); b. London, Eng. (1552?–1618).
RAPHAEL (Raffaello Santi) (painter); b. Urbino, It. (1483–1520).
RASPUTIN, Grigori Efimovich (monk); b. Tobolsk prov., Siberia (1871?–1916).
RAVEL, Maurice Joseph (composer); b. Ciboure, Fr. (1875–1937).
REED, Walter (army surgeon); b. Belroi, Va. (1851–1902).
REID, Whitelaw (journalist & diplomat); b. nr. Xenia, Ohio (1837–1912).
REINHARDT, Max (Max Goldmann) (theater producer); b. nr. Vienna, Aus. (1873–1943).
REMBRANDT (Harmensz van Rijn Rembrandt) (painter); b. Leyden, Hol. (1606–1669).
RENOIR, Pierre Auguste (painter); b. Limoges, Fr. (1841–1919).
RESPIGHI, Ottorino (composer); b. Bologna, It. (1879–1936).
REVERE, Paul (silversmith); b. Boston, Mass. (1735–1818).
REYNOLDS, Sir Joshua (painter); b. nr. Plymouth, Eng. (1723–1792).
RHODES, Cecil John (South African statesman); b. Bishop Stortford, Herts., Eng. (1853–1902).
RICE, Grantland (sports writer); b. Murfreesboro, Tenn. (1880–1954).
RICHELIEU, Duc de (Armand Jean du Plessis) (cardinal); b. Paris (1585–1642).
RILEY, James Whitcomb (poet); b. Greenfield, Ind. (1849–1916).
RIMSKI-KORSAKOV, Nikolai Andreevich (composer); b. Tikhvin, Rus. (1844–1908).
ROBESPIERRE, Maximilien François Marie Isidore de (French Revolutionist); b. Arras, Fr. (1758–1794).
ROBINSON, Bill (Luther) (dancer); b. Richmond, Va. (1878–1949).
ROBINSON, Edwin Arlington (poet); b. Head Tide, Maine (1869–1935).
ROCKEFELLER, John Davidson (capitalist); b. Richford, N. Y. (1839–1937).
ROCKNE, Knute Kenneth (football coach); b. Voss, Nor. (1888–1931).
RODIN, François Auguste René (sculptor); b. Paris, Fr. (1840–1917).
ROENTGEN, Wilhelm Konrad (physicist); b. Lennep, Prus. (1845–1923).
ROGERS, Will (William Penn Adair Rogers) (humorist); b. Oologah, Okla. (1879–1935).
ROLLAND, Romain (author); b. Clamecy, Fr. (1866–1944).
ROMBERG, Sigmund (composer); b. Hungary (1887–1951).
ROMMEL, Erwin (general); b. Swabia, Ger. (1891–1944).
ROOT, Elihu (statesman); b. Clinton, N. Y. (1845–1937).
ROSSETTI, Dante Gabriel (painter & poet); b. London, Eng. (1828–1882).
ROSSINI, Gioacchino Antonio (composer); b. Pesaro, It. (1792–1868).
ROSTAND, Edmond (dramatist); b. Marseilles, Fr. (1868–1918).
ROUSSEAU, Jean Jacques (philosopher); b. Geneva, Switz. (1712–1778).
RUBENS, Peter Paul (painter); b. Siegen, Westphalia (1577–1640).
RUBINSTEIN, Anton Grigorovich (pianist & composer); b. Kherson, Ukr. (1829–1894).
RUNYON, Alfred Damon (journalist); b. New York City (1880–1946).
RUSKIN, John (art critic); b. London, Eng. (1819–1900).
RUSSELL, Lillian (Helen Louise Leonard) (soprano); b. Clinton, Iowa (1861–1922).
RUTH, Babe (George Herman Ruth) (baseball player); b. Baltimore, Md. (1895–1948).

SAINT-GAUDENS, Augustus (sculptor); b. Dublin, Ire. (1848–1907).
SAINT-SAËNS, Charles Camille (composer); b. Paris, Fr. (1835–1921).
SAND, George (Amandine Lucille Aurore Dudevant, nee Dupin) (novelist); b. Paris, Fr. (1803–1876).

SANTAYANA, George (philosopher); b. Madrid, Sp. (1863–1952).
SAPPHO (poet); b. Lesbos (lived c.600 B.C.).
SARGENT, John Singer (painter); b. Florence, It., of American parents (1856–1925).
SARTO, Andrea del (Andrea Domenico d'Agnolo di Francesco) (painter); b. Florence (1486–1531).
SAUL (King of Israel) (11th century B.C.).
SCHILLER, Johann Christoph (dramatist); b. Marbach, Wurttemberg, Ger. (1759–1805).
SCHNABEL, Artur (pianist); b. Lipnik, Aus. (1882–1951).
SCHOPENHAUER, Arthur (philosopher); b. Danzig (1788–1860).
SCHUBERT, Franz Peter (composer); b. Vienna, Aus. (1797–1826).
SCHUMANN, Robert Alexander (composer); b. Zwickau, Saxony, Ger. (1810–1856).
SCHUMANN-HEINK, Ernestine (nee Roessler) (contralto); b. nr. Prague, Boh. (1861–1936).
SCHURZ, Carl (U. S. army officer & journalist); b. nr. Cologne, Ger. (1829–1906).
SCOTT, Robert Falcon (explorer); b. Devenport, Eng. (1868–1912).
SCOTT, Sir Walter (novelist); b. Edinburgh, Scot. (1771–1832).
SEWARD, William Henry (statesman); b. Florida, N. Y. (1801–1872).
SHAKESPEARE, William (dramatist); b. Stratford on Avon, Eng. (1564–1616).
SHAW, George Bernard (dramatist); b. Dublin, Ire. (1856–1950).
SHELLEY, Percy Bysshe (poet); b. nr. Horsham, Sus., Eng. (1792–1822).
SHERATON, Thomas (furniture designer); Stockton-on-Tees, Eng. (1751–1806).
SHERIDAN, Richard Brinsley (dramatist); b. Dublin, Ire. (1751–1816).
SHERMAN, William Tecumseh (army officer); b. Lancaster, Ohio (1820–1891).
SKINNER, Otis (actor); b. Cambridge, Mass. (1858–1942).
SLOAN, John (painter); b. Lock Haven, Pa. (1871–1951).
SMETANA, Bedřich (composer); b. Leitomischl, Boh. (1824–1884).
SMITH, Adam (economist); b. Kirkaldy, Fifes., Scot. (1723–1790).
SMITH, Alfred Emanuel (politician); b. New York City (1873–1944).
SMITH, John (American colonist); b. Willoughby, Lincs., Eng. (1579–1631).
SMITH, Joseph (religious leader); b. Sharon, Vt. (1805–1844).
SMUTS, Jan Christian (statesman); b. Cape Town, So. Af. (1870–1950).
SOCRATES (philosopher); b. Athens (c.470–399 B.C.).
SOLOMON (King of Israel); b. Jerusalem (?) (died c.933 B.C.).
SOLON (lawgiver); b. Salamis, Gr. (638?–?559 B.C.).
SOPHOCLES (dramatist); b. nr. Athens (496?–406 B.C.).
SOTHERN, Edward Hugh (actor); b. New Orleans, La. (1859–1933).
SOUSA, John Philip (composer); b. Washington, D. C. (1854–1932).
SPENCER, Herbert (philosopher); b. Derby, Eng. (1820–1903).
SPENGLER, Oswald (philosopher); b. Blankenburg, Ger. (1880–1936).
SPENSER, Edmund (poet); b. London, Eng. (1552?–1599).
SPINOZA, Baruch (philosopher); b. Amsterdam, Hol. (1632–1677).
STALIN, Joseph Vissarionovich (Iosif V. Dzhugashvili) (statesman); b. nr. Tiflis, Georgia, Rus. (1879–1953).
STANISLAVSKI (Konstantin Sergeevich Alekseev) (stage producer); b. Moscow, Rus. (1863–1938).
STANLEY, Sir Henry Morton (John Rowlands) (explorer); b. Denbigh, Wales (1841–1904).
STEFFENS, Joseph Lincoln (journalist); b. San Francisco, Calif. (1866–1936).
STEIN, Gertrude (author); b. Allegheny, Pa. (1874–1946).
STEINMETZ, Charles Proteus (engineer); b. Breslau, Ger. (1865–1923).
STENDHAL (Marie Henri Beyle) (novelist); b. Grenoble, Fr. (1783–1842).
STERNE, Laurence (novelist); b. Clonmel, Ire. (1713–1768).
STEVENSON, Robert Louis Balfour (novelist & poet); b. Edinburgh, Scot. (1850–1894).
STONE, Lucy (woman suffragist); b. nr. West Brookfield, Mass. (1818–1893).
STOWE, Harriet Elizabeth (nee Beecher) (novelist); b. Litchfield, Conn. (1811–1896).
STRADIVARI, Antonio (violinmaker); b. Cremona, It. (1644–1737).
STRAUS, Oskar (composer); b. Vienna, Aus. (1870–1954).
STRAUSS, Johann (composer); b. Vienna, Aus. (1825–1899).
STRAUSS, Richard (composer); b. Munich, Ger. (1864–1949).
STUART, Gilbert Charles (painter); b. Rhode Island (1755–1828).
STUYVESANT, Peter (Governor of New Amsterdam); b. W. Friesland, Neth. (1592–1672).
SULLIVAN, Sir Arthur Seymour (composer); b. London, Eng. (1842–1900).
SULLIVAN, John Lawrence (boxer); b. Boston, Mass. (1858–1918).
SUN YAT-SEN (statesman); b. nr. Macao, China (1866–1925).
SWIFT, Jonathan (satirist); b. Dublin, Ire. (1667–1745).
SWINBURNE, Algernon Charles (poet); b. London, Eng. (1837–1909).
SYNGE, John Millington (dramatist); b. nr. Dublin, Ire. (1871–1909).

TAFT, Robert Alphonso (legislator); b. Cincinnati, Ohio (1889–1953).
TALLEYRAND-PÉRIGORD, Charles Maurice de (statesman); b. Paris, Fr. (1754–1838).
TAMERLANE (Timur) (Mongol conqueror); b. nr. Samarkand, Sib. (1336?–1405).
TARKINGTON, Newton Booth (novelist); b. Indianapolis, Ind. (1869–1946).
TCHAIKOVSKY (or TSCHAIKOWSKY), Peter (Pëtr) Ilich (composer); b. Ural region, Rus. (1840–1893).
TECUMSEH (Shawnee Indian chief); b. nr. Springfield, Ill. (1768?–1813).
TENNYSON, Alfred (1st Baron Tennyson) (poet); b. Somersby, Lincs., Eng. (1809–1892).

TERRY, Ellen Alicia (actress); b. Coventry, Eng. (1847–1928).
TETRAZZINI, Luisa (soprano); b. Florence, It. (1874–1940).
THACKERAY, William Makepeace (novelist); b. Calcutta, India (1811–1863).
THOREAU, Henry David (naturalist & author); b. Concord, Mass. (1817–1862).
THORPE, Jim (James Francis Thorpe) (athlete); b. nr. Prague, Okla. (1888–1953).
TIBERIUS (Tiberius Claudis Nero Caesar) (Roman emperor) (42 B.C.–A.D. 37).
TILDEN, William Tatem, II (tennis player); b. Philadelphia, Pa. (1893–1953).
TINTORETTO, Il (Jacopo Robusti) (painter); b. Venice (1518–1594).
TITIAN (Tiziano Vecelli) (painter); b. Preve di Cadere, Venezia, It. (1477–1576).
TOLSTOI, Count Leo (Lev) Nikolaevich (novelist); b. Tula prov., Rus. (1828–1910).
TOULOUSE-LAUTREC (Henri Marie Raymond de Toulouse-Lautrec Monfa) (painter); b. Albi, Fr. (1864–1901).
TROTSKY, Leon (Leib Davydovich Bronstein) (statesman); b. Elisavetgrad, Rus. (1877–1940).
TURGENEV, Ivan Sergeevich (novelist); b. Orel, Rus. (1818–1883).
TWAIN, Mark (Samuel Langhorne Clemens) (author); b. Florida, Mo. (1835–1910).
TWEED, William March (politician); b. New York City (1823–1878).

VALENTINO, Rudolph (Rodolpho d'Antonguolla) (actor); b. Castellaneta, It. (1895–1926).
VANDENBERG, Arthur Hendrick (legislator); b. Grand Rapids, Mich. (1884–1951).
VANDERBILT, Cornelius (financier); b. Port Richmond, N. Y. (1794–1877).
VANDYKE (or VAN DYCK), Sir Anthony (painter); b. Antwerp, Hol. (1599–1641).
VAN GOGH, *See* Gogh.
VELÁZQUEZ, Diego Rodríguez de Silva y (painter); b. Seville, Sp. (1599–1660).
VERDI, Giuseppe (composer); b. Roncole, Parma, It. (1813–1901).
VERMEER, Jan (or Jan van der Meer van Delft) (painter); b. Delft, Hol. (1632–1675).
VERNE, Jules (author); b. Nantes, Fr. (1828–1905).
VILLA, Pancho (or Francisco) (Doroteo Arango) (bandit); b. Río Grande, Mex. (1877–1923).
VILLON, François (François de Montcorbier) (poet); b. Paris, Fr. (1431–c.1463).
VINCI, Leonardo da (painter & scientist); b. Vinci, Tuscany, It. (1452–1519).
VIRGIL (or **VERGIL**) (Publius Vergilius Maro) (poet); b. Mantua, Gaul (70–19 B.C.).
VISHINSKY, Andrei Yanuarievich (statesman); b. Odessa, Rus. (1883–1955).
VOLTAIRE (François Marie Arouet) (author); b. Paris, Fr. (1694–1778).

WAGNER, Wilhelm Richard (composer); b. Leipzig, Ger. (1813–1883).
WALTON, Izaak (author); b. Stafford, Eng. (1593–1683).
WARD, Fannie (actress); b. St. Louis, Mo. (1872–1952).
WASHINGTON, Booker Taliaferro (educator); b. Franklin Co., Va. (1856–1915).
WATT, James (inventor); b. Greenock, Scot. (1736–1819).
WAYNE, Anthony (military officer); b. Waynesboro, Pa. (1745–1796).
WEBER, Karl Maria Friedrich Ernst von (composer); b. nr. Lübeck, Ger. (1786–1826).
WEBSTER, Daniel (statesman); b. Salisbury, N. H. (1782–1852).
WEBSTER, Noah (lexicographer); b. West Hartford, Conn. (1758–1843).
WEILL, Kurt (composer); b. Dessau, Ger. (1900–1950).
WEIZMANN, Chaim (Israeli statesman); b. Grodno prov., Rus. (1874–1952).
WELLINGTON, Duke of (Arthur Wellesley) (statesman); b. Ireland (1769–1852).
WELLS, Herbert George (author); b. Bromley, Kent, Eng. (1866–1946).
WERFEL, Franz (author); b. Prague, Boh. (1890–1945).
WESLEY, John (religious leader); b. Epsworth Rectory, Lincs., Eng. (1703–1791).
WESTINGHOUSE, George (inventor); b. Central Bridge, N. Y. (1846–1914).
WHARTON, Edith Newbold (nee Jones) (novelist); b. New York City (1862–1937).
WHISTLER, James Abbott McNeill (painter); b. Lowell, Mass. (1834–1903).
WHITE, William Allen (journalist); b. Emporia, Kans. (1868–1944).
WHITMAN, Walt (Walter) (poet); b. West Hills, N. Y. (1819–1892).
WHITNEY, Eli (inventor); b. Westboro, Mass. (1765–1825).
WHITTIER, John Greenleaf (poet); b. Haverhill, Mass. (1807–1892).
WILDE, Oscar Fingal O'Flahertie Wills (author); b. Dublin, Ire. (1856–1900).
WILLIAMS, Roger (clergyman); b. London, Eng. (1603?–1683).
WILLKIE, Wendell Lewis (lawyer); b. Elwood, Ind. (1892–1944).
WISE, Stephen Samuel (rabbi); b. Budapest, Hung. (1874–1949).
WOLFE, Thomas Clayton (novelist); b. Asheville, N. C. (1900–1938).
WOLSEY, Thomas (prelate & statesman); b. Ipswich, Eng. (1475?–1530).
WOOD, Grant (painter); b. Anamosa, Iowa (1892–1942).
WOOLF, Adeline Virginia (nee Stephens) (novelist); b. London, Eng. (1882–1941).
WOOLLCOTT, Alexander (author); b. Phalanx, N. J. (1887–1943).
WORDSWORTH, William (poet); b. Cockermouth, Cumb., Eng. (1770–1850).
WRIGHT, Orville (inventor); b. Dayton, Ohio (1871–1948).
WRIGHT, Wilbur (inventor); b. Millville, Ind. (1867–1912).

YEATS, William Butler (poet); b. nr. Dublin, Ire. (1865–1939).
YOUNG, Brigham (religious leader); b. Whitingham, Vt. (1801–1877).

ZIEGFELD, Florenz (theatrical producer); b. Chicago, Ill. (1867–1932).
ZOLA, Émile (novelist); b. Paris, Fr. (1840–1902).
ZOROASTER (or **ZARATHUSTRA**) (religious leader); b. Persia (lived c.6th century B.C.).

THE UNITED STATES

★

STATES, TERRITORIES AND CITIES

(State flower, bird, etc. are official unless otherwise indicated; dates in parentheses are those of adoption. Area is total of land and inland water. Estimated population figures for 1954 are as of July 1 and are provisional. Largest cities include incorporated places only.)

ALABAMA

Capital: Montgomery.
Governor: James E. Folsom, Dem. (to Jan. 1959).
Organized as territory: Mar. 3, 1817.
Entered Union & (rank): Dec. 14, 1819 (22).
Seceded from Union: Jan. 11, 1861.
Re-entered Union: July 13, 1868.
Present constitution adopted: 1901.
Motto: *Audemus jura nostra defendere* (We dare defend our rights).
State flower: Goldenrod (1927).
State bird: Yellowhammer (1927).
State song: "Alabama" (1931).
Nickname: Yellowhammer State.
Origin of name: Disputed. May come from Choctaw meaning "thicket-clearers" or "vegetarian-gatherers."
1940 population & (rank): 2,832,961 (17).
1950 population & (rank): 3,061,743 (17).
1954 estimated population: 3,121,000.
Area & (rank): 51,609 sq. mi. (28).
Geographic center: In Chilton Co., 12 mi. SW of Clanton.
Number of counties: 67.
Largest cities (1950 Census): Birmingham (326,037); Mobile (129,009); Montgomery (106,525); Gadsden (55,725); Tuscaloosa (46,396).
State forests: 6 (14,248.58 ac.).
State parks: 34 (39,619.6 ac.).
State general revenue (1953): $235,220,058.
State general expenditure (1953): $239,525,288.

Alabama is the biggest heavy-industry state in the South. Cotton goods, iron and steel and saw mill products lead Alabama's manufacturing, which is centered in the mills, mines and factories in and around Birmingham, the "Pittsburgh of the South." The state is also high in the growing of nuts, corn, hay and sweet potatoes. Other interests include the making of commercial fertilizer and shipping of raw cotton, iron and steel and hardwood lumber. Muscle Shoals, on the Tennessee River, provides a great electric power source.

At Tuskegee Institute, founded by Booker T. Washington, Dr. George Washington Carver carried out his famed agricultural research.

The Confederacy was founded at Montgomery in Feb. 1861, and for a time the city was the Confederate capital.

In 1540, Hernando de Soto and his treasure seekers were the first white men to see the state, although Cabeza de Vaca may have preceded him in 1528.

ARIZONA

Capital: Phoenix.
Governor: Ernest W. McFarland, Dem. (to Jan. 1957).
Organized as territory: Feb. 24, 1863.
Entered Union & (rank): Feb. 14, 1912 (48).
Present constitution adopted: 1911.
Motto: *Ditat Deus* (God enriches).
State flower: Flower of saguaro cactus (1931).
State bird: Cactus wren (1931).
State colors: Blue and old gold (1915).
State song: "Arizona," a march song (1919).
State tree: Palo Verde (1954).
Nickname: Grand Canyon State.
Origin of name: From the Indian "Arizonac," meaning "little spring."
1940 population & (rank): 499,261 (43).
1950 population & (rank): 749,587 (37).
1954 estimated population: 993,000.
Area & (rank): 113,909 sq. mi. (5).
Geographic center: In Yavapai Co., 55 mi. SE of Prescott.
Number of counties: 14.
Largest cities (1950 Census): Phoenix (106,818); Tucson (45,454); Mesa (16,790); Douglas (9,442); Yuma (9,145).
State forests: None.
State parks: None.
State revenue (1953–54): $83,700,676.
State expenditure (1953–54): $83,502,999.

Agriculture is Arizona's largest revenue-producing industry. By means of irrigation, its once arid acres produce alfalfa, cotton, wheat, sorghum, vegetables, citrus fruits and dates. Income from livestock ranks high from both range and feeder cattle.

Mining of copper, gold, vanadium, uranium and silver ranks next among the industries, the production of copper exceeding that of any other state. Smelting and refining are leading activities.

Phoenix, its largest city, is both a popular health resort and a busy shipper of cotton and vegetables. Douglas loads cattle and smelts copper.

With the Hopi, Navajo (the largest in numbers) and Apache tribes, Arizona has the largest U. S. Indian population, spread over fourteen reservations. It also has some of the country's most famous scenery. In the north is the Grand Canyon; in the east are located the Petrified Forest and Painted Desert.

Marcos de Niza, a Franciscan friar, entered the state in 1539 in search of the mythical seven cities of Cibola, and was followed a year later by Coronado.

ARKANSAS

Capital: Little Rock.
Governor: Orval Faubus, Dem. (to Jan. 1957).
Organized as territory: Mar. 2, 1819.
Entered Union & (rank): June 15, 1836 (25).
Seceded from Union: May 6, 1861.
Re-entered Union: June 22, 1868.
Present constitution adopted: 1874.
Motto: *Regnat populus* (The people rule).
State flower: Apple Blossom (1901).
State tree: Pine (1939).
State bird: Mockingbird.
State song: "The Arkansas Traveler" (1949).
Nickname: Land of Opportunity.
Origin of name: From the Quapaw Indians.
1940 population & (rank): 1,949,387 (24).
1950 population & (rank): 1,909,511 (30).
1954 estimited population: 1,910,000.
Area & (rank): 53,102 sq. mi. (26).
Geographic center: In Pulaski Co., 12 mi. N of W of Little Rock.
Number of counties: 75.
Largest cities (1950 Census): Little Rock (102,213); Fort Smith (47,942); North Little Rock (44,097); Pine Bluff (37,162); Hot Springs (29,307).
State forests: None.
State parks: 7 (17,907 ac.).
State general revenue (1951): $101,207,000.
State general expenditure (1951): $99,000,000.

About 90 per cent of the nation's bauxite —the source of aluminum—comes from the earth of Arkansas, which also contains North America's only known diamond mine, located in Pike County near Murfreesboro, and presently inactive.

Mostly flat, Arkansas has an equable southern climate and fertile central valleys which grow cotton, rice, wheat, corn, oats, potatoes and fruit. Other industries are oil production, lumbering and the production of whetstones and antimony ore.

Hot Springs entertains fifteen times its population in guests each year. Its forty-seven famous curative mineral springs, the only ones administered by the Federal Government, are in Hot Springs National Park in the Ouachita Mountains. Pine Bluff has the unique distinction of having the largest archery factory in the country.

Hernando de Soto was probably the first white man to see this state in 1541.

CALIFORNIA

Capital: Sacramento.
Governor: Goodwin J. Knight, Rep. (to Jan. 1959).
Entered Union & (rank): Sept. 9, 1850 (31).
Present constitution adopted: 1879.
Motto: *Eureka* (I have found it).
State flower: Golden poppy (1903).
State tree: California redwood (1937).
State bird: California valley quail (1931).
State animal: Grizzly bear (unofficial).
State fish: California golden trout (1947).
State insect: California dog-face butterfly (unofficial).
State colors: Blue and gold (unofficial).
State song: "I Love You, California" (1951).
Nickname: Golden State.
Origin of name: From a book by the Spaniard Ordoñez de Montalvo.
1940 population & (rank): 6,907,387 (5).
1950 population & (rank): 10,586,223 (2).
1954 estimated population: 12,554,000.
Area & (rank): 158,693 sq. mi. (2).
Geographic center: In Madera Co., 35 mi. NE of Madera.
Number of counties: 58.
Largest cities (1950 Census): Los Angeles (2,104,663); San Francisco (798,000); Oakland (397,000); San Diego (434,924); Long Beach (262,000).
State forests: 8 (70,235 ac.).
State parks and beaches: 137 (565,000 ac.).
State general revenue (1953): $1,542,811,000.
State general expenditure (1953): $1,552,957,000.

California, celebrated for cinema and sunshine, is one of the nation's economic giants. It collects more money from raising food and catching fish than any other state and it stands high in oil production, lumbering and manufacturing. Out-of-state tourist visitors and the travel and recreation expenditures of the state's residents continue to play an important part in the expansion of trade and employment opportunities. Irrigation, in which California leads the country, makes possible the production of more than 200 commercial crops, with cotton, grapes, hay, oranges, barley, lettuce, tomatoes, potatoes and peaches topping the list. The state leads in wines and brandies.

Nature is spectacular. Death Valley, in the southeast, is 282 feet below sea level, the lowest spot in the nation; Mt. Whitney, a 14,495-foot peak, is the highest point in the U. S.; Lassen Peak is the only active U. S. volcano although its last eruptions were recorded in the years from 1914 to 1917; and the General Sherman Tree in Sequoia National Park is estimated to be about 3,500 years old. San Pedro is the world's largest man-made harbor, and the Bank of America National Trust and Savings Association, operated and owned by the Giannini family, is the largest private bank.

Gold, which was responsible for the state's settlement boom, is still found here, but the state's most important mineral products today are oil, natural gas and natural gas liquids, cement, sand and gravel, boron minerals, miscellaneous stones, tungsten, iron ore, diatonite, gypsum, salt and gold.

California is a leader in industrial energy and its cities specialize in airplane making, shipbuilding, furniture manufacturing and machinery production.

California's four national parks are great tourist attractions and the San Francisco-Oakland and Golden Gate Bridges are among the world's engineering marvels.

Juan Rodriguez Cabrillo, Spanish explorer, was probably the first white man to see the state in 1542.

COLORADO

Capital: Denver.
Governor: Edwin C. Johnson, Dem. (to Jan. 1957).
Organized as territory: Feb. 28, 1861.
Entered Union & (rank): Aug. 1, 1876 (38).
Present constitution adopted: 1876.
Motto: *Nil sine Numine* (Nothing without Providence).
State flower: Rocky Mountain columbine (1899).

State tree: Colorado blue spruce (1939).
State bird: Lark bunting (1931).
State colors: Blue and white (1911).
State song: "Where the Columbines Grow" (1915).
Nickname: Centennial State.
Origin of name: From the Spanish, meaning "red."
1940 population & (rank): 1,123,296 (33).
1950 population & (rank): 1,325,089 (34).
1954 estimated population: 1,456,000.
Area & (rank): 104,247 sq. mi. (7).
Geographic center: In Park Co., 30 mi. NW of Pikes Peak.
Number of counties: 63.
Largest cities (1950 Census): Denver (415,786); Pueblo (63,685); Colorado Springs (45,472); Greeley (20,354); Boulder (19,999).
State forests: 1 (70,980 ac.).
Total state revenue (1954): $221,256,552.
Total state expenditure (1954): $221,461,613.

Colorado, the most elevated state in the nation, with 52 of its peaks over 14,000 feet in height and more than 1,000 going beyond the 10,000-foot mark, began as a miner of gold but has been predominantly agricultural in recent times. Livestock, wheat, hay, beans, sugar beets, corn, potatoes, barley and truck vegetables head the crop list. Like California and Arkansas, the state has a highly developed irrigation system to counteract its dry climate and promote farming.

Colorado is one of the nation's largest producers of uranium and vanadium; also mined are gold, silver, lead, zinc, copper, molybdenum, coal and several nonmetallics. The state is also a leading oil producer.

Pueblo, the "Pittsburgh of the West," makes iron, steel, brick, tile and foundry products. Colorado Springs is perhaps the most popular tourist center in the Rocky Mountain sector. Mount Evans Highway is the highest auto road in North America. The world's highest suspension bridge stretches 1,053 feet over the Royal Gorge of the Arkansas River. Summit Lake, 12,740 feet high, near the top of Mt. Evans, is the highest lake in the U. S. reached by an auto road.

Of archeological interest are the cliff dwellings in the southwestern part of the state dating back to the 1st century A.D.

Coronado entered the state in 1540.

CONNECTICUT

Capital: Hartford.
Governor: Abraham A. Ribicoff, Dem. (to Jan. 1959).
Entered Union & (rank): Jan. 9, 1788 (5).
Present constitution adopted: 1818; revised effective 1955.
Motto: *Qui transtulit sustinet* (He who transplanted still sustains).
State flower: Mountain laurel (1907).
State tree: White oak (1947).
State bird: American robin (1943).
State song: None.
Nicknames: Constitution State; Nutmeg State; Land of Steady Habits.
Origin of name: From an Indian word meaning "beside the long tidal river."
1940 population & (rank): 1,709,242 (31).
1950 population & (rank): 2,007,280 (28).
1954 estimated population: 2,219,000.
Area & (rank): 5,009 sq. mi. (46).
Geographic center: In Hartford Co., at East Berlin.
Number of counties: 8.
Largest cities (1950 Census): Hartford (177,397); New Haven (164,443); Bridgeport (158,709); Waterbury (104,477); Stamford (74,293).
State forests: 26.
State parks: 66.
State general revenue (1953): $221,426,092.
State general expenditure (1953): $196,764,603.

Connecticut earned its sobriquet, the "Arsenal of the Nation," by its ability to turn out firearms and ammunition in early days, and from this developed an ability to turn out precision instruments of all classes.

Connecticut's cities produce a variety of products, some of which are: arms, sewing machines, airplanes, typewriters, motors, hardware, cutlery, tools, clocks, locks, pottery, machinery, brass products and hats. Hartford, which has the oldest U. S. newspaper, the *Courant*, established in 1764, is the insurance capital of the nation.

Connecticut devotes its farmland mainly to dairying, fruit growing and poultry raising. It stands high in tobacco growing and no crop in the nation receives as high a price per acre as her shade-grown tobacco.

The state is a popular resort area both for its beaches on Long Island Sound and for its inland lakes and forested hills. The southwest part of the state is a suburban area of New York City.

Connecticut was the first state to have a written constitution, the *Fundamental Orders*, adopted by three original towns of Colonial days in Jan. 1639.

A Dutch trader, Adrian Block, began the exploration of the state in 1614.

DELAWARE

Capital: Dover.
Governor: J. Caleb Boggs, Rep. (to Jan. 1957).
Entered Union & (rank): Dec. 7, 1787 (1).
Present constitution adopted: 1897.
Motto: Liberty and independence.
State flower: Peach blossom.
State bird: Blue hen chicken.
State song: "Our Delaware."
Nicknames: Diamond State; Blue Hen State; First State.
Origin of name: In honor of Sir Thomas West, Lord De La Warr.
1940 population & (rank): 266,505 (46).
1950 population & (rank): 318,085 (46).
1954 estimated population: 367,000.
Area & (rank): 2,057 sq. mi. (47).
Geographic center: In Kent Co., 11 mi. S of Dover.
Number of counties: 3.
Largest cities (1950 Census): Wilmington (110,356); Newark (6,731); Dover (6,223); New Castle (5,396); Elsmere (5,314).
State forests: 5 (4,200 ac.).
State parks: 3.
State general revenue (1953): $26,499,109.
State general expenditure (1953): $33,139,388.

Little Delaware, at the lowest mean elevation of any state, grows a great variety of small fruit and vegetables and is a U. S.

pioneer in the industry of food canning. Peaches, strawberries, apples, corn, wheat, lima beans, asparagus, tomatoes and hay are the leading crops. Fishing in the bay is an important industry. Delaware's chicken farms are one of the great supply sources for the big markets of the East.

Manufactures in Delaware include chemicals, vulcanized fiber, glazed kid and morocco leathers, textiles, paper, metal products, machinery, machine tools and transportation equipment of every major type. In 1844, the *Bangor*, the first iron seagoing propellor-type vessel constructed in the U. S., was launched at Wilmington.

Delaware was the first state to ratify the U. S. Constitution, on Dec. 7, 1787. During the Civil War, although a slave state, Delaware refused to secede from the Union; the southern part of the state, however, supplied many supporters to the Confederacy.

Henry Hudson discovered Delaware Bay in his exploration of 1609. First settlers in the state were Dutchmen, who arrived in 1631, but who were shortly afterwards massacred by the Indians.

DISTRICT OF COLUMBIA

(City of Washington)

Land ceded to Congress: 1788 by Maryland; 1789 by Virginia (retroceded to Virginia Sept. 7, 1846).
Seat of government transferred to D. C.: Dec. 1, 1800.
Created municipal corporation: Feb. 21, 1871.
Present form of government established: June 11, 1878.
President of Board of Commissioners: Samuel Spencer.
Motto: *Justitia omnibus* (Justice to all).
Official flower: American beauty rose.
Origin of name: In honor of Columbus.
1940 population & (rank as city): 663,091 (11).
1950 population & (rank as city): 802,178 (9).
1954 estimated population: 861,000.
Area: Land, 61.4 sq. mi.; inland water, 7.8.
Geographic center: Near corner of Fourth and L Sts., NW.
Altitude: Highest, 420 ft.; lowest, sea level.
Location: Between Virginia and Maryland, on Potomac River.
Churches: Protestant, 425; Roman Catholic, 36; Jewish, 12; others, 4.
City-owned parks: 730 (12,500 ac.).
Telephones: 709,847.
Radio sets: 374,204.
Television sets: 175,000.
Radio stations: AM, 13; FM, 7.
Television stations: 4.
Assessed valuation (1954): $2,988,079,293.
City tax rate (1954): $2.20 per $100.
Bonded debt (1953): None.
Revenue (1954): $150,683,830.
Expenditure (1954): $148,451,186.

The District of Columbia—identical with the City of Washington—is the capital of the U. S. and the first carefully planned capital in the world.

D. C. history began in 1790 when Congress directed selection of a new capital site, 10 miles square, along the Potomac. When the site was determined, it included thirty and three-quarters square miles on the Virginia side of the river. In 1846, however, Congress returned that area to Virginia.

President Washington had commissioned Major Pierre L'Enfant, a French engineer who had fought in the Revolution, to plan the new capital and in 1800 the government moved in. In 1814, during the War of 1812, a British force fired the capital and it was from the white paint applied to cover fire damage that the President's home came to be called the White House.

Washington's skyline is dominated by the Capitol and the Washington Monument, towering 555 feet. The Capitol, while not in the city center, is the key to the street address system. The city is laid out in rectangular blocks, created by streets intersecting at right angles. In addition, diagonal arteries fan out from various centers. Pennsylvania Avenue—the radial lines are generally named for the states—is the most famous of them, with the White House at number 1600.

The Capitol is 751 feet long and 350 feet wide. It has 431 rooms. The two wings, constructed of marble, house the Senate and the House; and the central part of the building contains the Rotunda, the Statuary Hall and the old Supreme Court chamber. Visitors may go through the building from 9 A.M. until 4:30 P.M. Congress normally convenes at noon, and the floor of the Senate and House must be cleared by 11:45 A.M. The galleries in the Senate and House chambers are open to visitors during sessions.

Washington has many other famous buildings and monuments—the Library of Congress, Jefferson Memorial, Lincoln Memorial, Grant Memorial, Tomb of the Unknown Soldier (Arlington Cemetery), Treasury Building, the Pentagon, Petersen House (where Lincoln died) and scores of others.

Washington is administered by three commissioners appointed by the President. Two of them must be residents of the District of Columbia and the third must be a U. S. Army engineer appointed by the Chief of Engineers.

FLORIDA

Capital: Tallahassee.
Governor: LeRoy Collins, Dem. (to Jan. 1959).
Organized as territory: Mar. 30, 1822.
Entered Union & (rank): Mar. 3, 1845 (27).
Seceded from Union: Jan. 10, 1861.
Re-entered Union: June 25, 1868.
Present constitution adopted: 1885.
Motto: In God we trust.
State flower: Orange blossom (1909).
State bird: Mockingbird (1927).
State song: "Swanee River" (1935).
Nickname: Sunshine State.
Origin of name: From the Spanish, meaning "feast of flowers" (Easter).
1940 population & (rank): 1,897,414 (27).
1950 population & (rank): 2,771,305 (20).
1954 estimated population: 3,524,000.
Area & (rank): 58,666 sq. mi. (21).
Geographic center: In Citrus Co., 12 mi. W of N of Brooksville.
Number of counties: 67.

Largest cities (1950 Census): Miami (249,276); Jacksonville (204,517); Tampa (124,681); St. Petersburg (96,738); Orlando (52,367).
State forests: 4 (204,035 ac.).
State parks: 23 (74,936 ac.).
State general revenue (1953): $278,479,314.
State general expenditure (1953): $220,374,511.

Agriculture is Florida's biggest steady pursuit, but hotel statistics point to its chief fame—resort and tourist business. Along its coastline, the longest of any state, dozens of communities more than double in population during the winter season when northerners flee snow and cold.

Oranges and grapefruit lead Florida's crop list, then come tomatoes, tobacco, beans, celery, potatoes and peanuts. Truck gardening, commercial fishing and cattle are leading industries. Deep-sea fishing for sport is a leading tourist hobby.

Florida's low elevation is dotted by some 30,000 small lakes and the Everglades National Park in the south. Tampa is one of the largest cigar manufacturers and Jacksonville ships lumber and turpentine. St. Augustine, founded in 1565, is the oldest town of European origin in the U. S. Key West, exclusive resort city, is the southernmost city in the U. S. and is connected to the mainland by a unique causeway.

In 1513, Ponce de León, seeking the mythical "Fountain of Youth," was the first white man to see the state.

GEORGIA

Capital: Atlanta.
Governor: Samuel Marvin Griffin, Dem. (to Jan. 1959).
Entered Union & (rank): Jan. 2, 1788 (4).
Seceded from Union: Jan. 19, 1861.
Re-entered Union: July 15, 1870.
Present constitution adopted: 1945.
Motto: Wisdom, justice and moderation.
State flower: Cherokee rose (1916).
State tree: Live oak (1937).
State bird: Brown thrasher (1935).
State song: "Georgia" (1922).
Nicknames: Peach State; Empire State of the South.
Origin of name: In honor of George II of England.
1940 population & (rank): 3,123,723 (14).
1950 population & (rank): 3,444,578 (13).
1954 estimated population: 3,660,000.
Area & (rank): 58,876 sq. mi. (20).
Geographic center: In Twiggs Co., 18 mi. SE of Macon.
Number of counties: 159.
Largest cities (1950 Census): Atlanta (331,314); Savannah (119,638); Columbus (79,611); Augusta (71,508); Macon (70,252).
State forests: 2 (2,000 ac.).
State parks: 25 (32,222 ac.).
State general revenue (1951): $228,876,399.59.
State general allocations (1951): $217,110,506.78.

Georgia is typical of the changing South. The value of its factory products has passed the value of its farm products, and industrialization is ever increasing. Atlanta is achieving importance as an industrial center. Cotton and lumber products, fertilizer, processed food and a great variety of other items are among the factory output of Macon, Augusta, Savannah and Columbus. Because of its numerous textile mills, Columbus is called the "Lowell of the South."

Georgia ranks high in cotton, tobacco, peanuts and pecans. Georgia's peaches are nationally famous. From its vast stands of pine come more than half of all U. S. resin and turpentine. The state is one of the leaders in the value of its clay products. Cattle grazing is extensive. Georgia marble is widely used.

Warm Springs has the celebrated foundation operated to aid infantile paralysis victims. It was there that President Franklin D. Roosevelt died on April 12, 1945.

Hernando de Soto, a Spaniard, in 1540, looked over the red clay of Georgia, and General James Oglethorpe founded its first British colony Feb. 12, 1733, at Savannah.

IDAHO

Capital: Boise.
Governor: Robert E. Smylie, Rep. (to Jan. 1959).
Organized as territory: Mar. 3, 1863.
Entered Union & (rank): July 3, 1890 (43).
Present constitution adopted: 1890.
Motto: *Esto perpetua* (It is perpetuated).
State flower: Syringa (1931).
State tree: White pine (1935).
State bird: Mountain bluebird (1931).
State song: "Here We Have Idaho."
Nicknames: Gem State; Gem of the mountains.
Origin of name: From a Shoshoni Indian word meaning "sunup."
1940 population & (rank): 524,873 (42).
1950 population & (rank): 588,637 (43).
1954 estimated population: 615,000.
Area & (rank): 83,557 sq. mi. (12).
Geographic center: In Custer Co., 24 mi. S of W of Challis.
Number of counties: 44, plus small part of Yellowstone Park.
Largest cities (1950 Census): Boise (34,393); Pocatello (26,131); Idaho Falls (19,218); Twin Falls (17,600); Nampa (16,185); Lewiston (12,985).
State forests: 925,000 ac.
State parks: 4 (9,000 ac.).
State revenue (1952): general fund, $21,928,-219.92; special funds, $67,634,499.06.
State expenditure (1952): general fund, $19,-449,181.12; special funds, $66,491,880.24.

Idaho's huge investment in irrigation has advanced its agriculture well ahead of its mining. Idaho potatoes are eaten everywhere. The state grows apples and other fruits and wheat, corn and barley. There is light diversified manufacturing and Pocatello sells its cheese to a world market.

Idaho mines gold, silver, lead, zinc, copper and tungsten, and still has vast undeveloped mineral wealth. In its rugged central mountains is an area that is reachable only by pack horse. The forests of the state, covering at least one-third of the area, account for the fact that lumbering is extensive.

Tourist trade is important. Hunting and fishing are excellent. Sun Valley is a famed

resort and attracts countless tourists to its swimming and skiing facilities.

Lewis and Clark visited Idaho in 1805 but real settlement began with the gold strike of 1860.

ILLINOIS

Capital: Springfield.
Governor: William G. Stratton, Rep. (to Jan. 1957).
Organized as territory: Feb. 3, 1809.
Entered Union & (rank): Dec. 3, 1818 (21).
Present constitution adopted: 1870.
Motto: State sovereignty, national union.
State flower: Violet (1908).
State tree: Oak (1908).
State bird: Cardinal (1929).
State song: "Illinois" (1925).
Nickname: Prairie State.
Origin of name: From an Indian word and French suffix meaning "tribe of superior men."
1940 population & (rank): 7,897,241 (3).
1950 population & (rank): 8,712,176 (4).
1954 estimated population: 9,165,000.
Area & (rank): 56,400 sq. mi. (23).
Geographic center: In Logan Co., 28 mi. NE of Springfield.
Number of counties: 102.
Largest cities (1950 Census): Chicago (3,620,962); Peoria (111,856); Rockford (92,927); East St. Louis (82,295); Springfield (81,628).
State forests: 3 (10,278 ac.).
State parks, memorials, conservation areas: 63 (28,000 ac.).
State general revenue (July 1, 1954): $903,641,502.
State general expenditure (June 30, 1954): $728,472,036.

Illinois anchors the Midwest like a rich giant, versatile in every big wealth-making industry. It stands high in manufacturing, coal mining, farm cash income, oil production. The sprawling Chicago district (including a slice of Indiana) is a great iron and steel producer, meat packer, grain exchange and railroad center. Chicago is also a busy long-flight airport city and Great Lakes port area. The Illinois sand and gravel business is exceeded only by that of California.

In agriculture, Illinois is first in soy beans and high in corn, oats, wheat, barley, rye, potatoes and truck vegetables. Hog raising and dairying are important industries of the state.

Illinois manufactures almost everything. Railroad cars, clothing, furniture, tractors, liquor, watches and farm implements are some of the items made in its several cities. An important U. S. arsenal is located on a Mississippi island off Rock Island.

Central Illinois is noted for shrines and memorials associated with the life and works of Abraham Lincoln, greatest son of Illinois. In Springfield are the Lincoln Home and Lincoln Tomb. At New Salem State Park, 20 miles northwest of Springfield, the reconstructed village of New Salem stands as a notable Lincoln memorial.

Marquette and Joliet, in 1673, were the first known explorers of this state.

INDIANA

Capital: Indianapolis.
Governor: George N. Craig, Rep. (to Jan. 1957).
Organized as territory: May 7, 1800.
Entered Union & (rank): Dec. 11, 1816 (19).
Present constitution adopted: 1851.
Motto: The Crossroads of America.
State flower: Zinnia (1931).
State tree: Tulip tree (1931).
State bird: Cardinal (1933).
State song: "On the Banks of the Wabash, Far Away" (1913).
Nickname: Hoosier State.
Origin of name: Meaning "land of Indians."
1940 population & (rank): 3,427,796 (12).
1950 population & (rank): 3,934,224 (12).
1954 estimated population: 4,209,000.
Area & (rank): 36,291 sq. mi. (37).
Geographic center: In Boone Co., 14 mi. W of N of Indianapolis.
Number of counties: 92.
Largest cities (1950 Census): Indianapolis (427,173); Gary (133,911); Ft. Wayne (133,607); Evansville (128,636); South Bend (115,911).
State forests: 14 (110,000 ac.).
State parks: 18 (46,698 ac.).
State general revenue (1953–54): $358,786,715.
State general expenditure (1953–54): $371,270,657.

Indiana's fifty-one-mile Michigan waterfront is one of the great industrial centers of the world, turning out iron and steel and oil products to make this state a leader in manufacturing. Its cities have some of the world's largest industrial plants and their great output is further swelled by the inland factories. The list of products is endless—automobiles, farm implements, aviation and railroad equipment, sewing machines are made from iron ore mined in the Great Lakes region.

As a farmer the state stands high in soy beans, corn, tobacco, onions, wheat, oats, rye and tomatoes.

Indianapolis is the second largest U. S. city not on a navigable body of water. Wyandotte Cave, the second largest in the U. S., is located in Crawford County of Southern Indiana. West Baden and French Lick are well known for their mineral springs. Indiana was one of the early states to adopt the secret ballot based on the Australian system.

IOWA

Capital: Des Moines.
Governor: Leo A. Hoegh, Rep. (to Jan. 1957).
Organized as territory: June 12, 1838.
Entered Union & (rank): Dec. 28, 1846 (29).
Present constitution adopted: 1857.
Motto: Our liberties we prize and our rights we will maintain.
State flower: Wild rose (1897).
State bird: Eastern goldfinch (1933).
State colors: Red, white and blue (in state flag).
State song: "Song of Iowa."
Nickname: Hawkeye State.
Origin of name: Probably from an Indian word meaning "this is the place."
1940 population & (rank): 2,538,268 (20).
1950 population & (rank): 2,621,073 (22).

1954 estimated population: 2,638,000.
Area & (rank): 56,280 sq. mi. (24).
Geographic center: In Story Co., 5 mi. NE of Ames.
Number of counties: 99.
Largest cities (1950 Census): Des Moines (177,965); Sioux City (83,991); Davenport (74,549); Cedar Rapids (72,296); Waterloo (65,198).
State forests: 8 (13,469 ac.).
State parks: 88 (28,369 ac.).
State general revenue (1953–54): $120,280,767.
State general expenditure (1953–54): $120,878,574.

Iowa stands in a class by itself as an agricultural state, supplying 10% of the nation's food supply. It ranks first in livestock income, value of beef marketed, production averages of oats and popcorn, and production of hogs, chickens, eggs, corn and timothy seed. Nearly 96% of the state's total acreage is in farms, and the fertility of its soil is unsurpassed. Of all the Grade A land in the country, 25% is in Iowa.

However, the value of Iowa's manufactured products exceeds that of her agricultural products. The top industrial activity is meat packing. Des Moines fittingly leads all cities in the publication of farm journals and is also a large insurance center.

Iowa has the lowest functional illiteracy rate in the nation.

West Branch is the birthplace of Herbert Hoover, who was the first President of the U. S. to be born west of the Mississippi.

Marquette and Joliet first explored the state in 1673.

KANSAS

Capital: Topeka.
Governor: Fred Hall, Rep. (to Jan. 1957).
Organized as territory: May 30, 1854.
Entered Union & (rank): Jan. 29, 1861 (34).
Present constitution adopted: 1861.
Motto: *Ad astra per aspera* (To the stars through difficulties).
State flower: Sunflower (1903).
State tree: Cottonwood (1937).
State bird: Western meadow lark (1937).
State animal: Buffalo (1955).
State song: "Home on the Range" (1947).
State march: "The Kansas March" (1935).
Nicknames: Sunflower State; Jayhawk State.
Origin of name: From a Sioux word meaning "people of the south wind."
1940 population & (rank): 1,801,028 (29).
1950 population & (rank): 1,905,299 (31).
1954 estimated population: 2,016,000.
Area & (rank): 82,276 sq. mi. (13).
Geographic center: In Barton Co., 15 mi. NE of Great Bend.
Number of counties: 105.
Largest cities (1950 Census): Wichita (168,279); Kansas City (129,553); Topeka (78,791); Hutchinson (33,575); Salina (26,176).
State forests: 1 (4,000 ac.).
State parks: 22 (14,394 ac.).
State operating revenue (1954): $222,359,000.
State operating expenditure (1954): $215,099,000.

Kansas finds its strength in wheat growing, flour milling and a variety of manufacturing enterprises. Slaughtering and meat packing are also extensively pursued. In the western part of the state, where Dodge City recalls the old days of cattle rustling, rich prairie land sprawls over a large area and gives an abundance of winter wheat and fine grazing.

Corn, sorghums, oats, barley, soy beans and potatoes are other crops. Besides oil, Kansas mines zinc, coal, salt and lead.

The state is the geographical center of the U. S., and the geodetic center of the North American continent.

Wichita, a growing industrial center, is a leader in the production of military and civilian aircraft. Kansas City is a transportation, milling, and meat-packing center.

After being dry since the Murray Liquor Law of 1881, Kansas repealed prohibition in March 1949.

Points of unusual interest in Kansas include: President Eisenhower's boyhood home and the new Eisenhower Memorial at Abilene; the geographic center of the U. S. at Lebanon; John Brown's well-preserved cabin at Osawatomie; and two historic military reservations—Ft. Leavenworth and Ft. Riley.

KENTUCKY

Capital: Frankfort.
Governor: Lawrence W. Wetherby, Dem. (to Dec. 1955).*
Entered Union & (rank): June 1, 1792 (15).
Present constitution adopted: 1891.
Motto: United we stand, divided we fall.
State flower: Goldenrod.
State bird: Kentucky cardinal.
State song: "My Old Kentucky Home."
Nickname: Blue Grass State.
Origin of name: From an Iroquoian Indian word "Ken-tah-ten" meaning "land of tomorrow."
1940 population & (rank): 2,845,627 (16).
1950 population & (rank): 2,944,806 (19).
1954 estimated population: 2,995,000.
Area & (rank): 40,395 sq. mi. (36).
Geographic center: In Marion Co., 3 mi. W of N of Lebanon.
Number of counties: 120.
Largest cities (1950 Census): Louisville (369,129); Covington (64,452); Lexington (55,534); Owensboro (33,651); Paducah (32,828).
State forests: 3 (30,022 ac.).
State parks: 25 (16,888 ac.).
Total state revenue (1953–54): $204,475,183.
Total state expenditures (1953–54): $209,349,408.

* Primary winners of Aug. 6, 1955: Democratic, Albert (Happy) Chandler; Republican, Edwin R. Denney.

Kentucky prides itself on producing some of the nation's best tobacco, horses and whisky. It stands high in the production of native asphalt, hemp, coal, corn, oil.

Among the manufactured items produced by its cities are furniture, aluminum ware, brooms, shoes, lumber products, machinery, textiles and iron and steel products. Besides coal and oil, important minerals are natural gas and quarry products.

Louisville, the largest city, famed for the Kentucky Derby at Churchill Downs,

has a large municipal university, distills whisky and is a great cigarette maker. The Blue Grass country is the home of some of the world's finest race horses. Lexington, standing in the center of this country, is a leading tobacconist. Mammoth Cave, with its many miles of underground passages, is one tourist attraction. Another is Kentucky Lake, 184 miles wide, the largest man-made body of water in the world.

Kentucky was credited with a star in the Confederate flag because a secessionist group in the southwest part of the state set up a short-lived government and joined the Confederacy. The legitimate government, however, remained in the Union throughout the Civil War.

Marquette and Joliet in 1673 saw Kentucky when it was the "Dark and Bloody Ground," fiercely contested by Indian tribes. Daniel Boone explored the country in 1767.

LOUISIANA

Capital: Baton Rouge.
Governor: Robert F. Kennon, Dem. (to May 1956).
Organized as territory: Mar. 26, 1804.
Entered Union & (rank): Apr. 30, 1812 (18).
Seceded from Union: Jan. 26, 1861.
Re-entered Union: May 26, 1865.
Present constitution adopted: 1921.
Motto: Union, justice and confidence.
State flower: Magnolia (1900).
State bird: Pelican (unofficial).
State song: "Song of Louisiana."
Nicknames: Pelican State; Creole State; Sugar State.
Origin of name: In honor of Louis XIV of France.
1940 population & (rank): 2,363,880 (21).
1950 population & (rank): 2,683,516 (21).
1954 estimated population: 2,924,000.
Area & (rank): 48,523 sq. mi. (30).
Geographic center: In Avoyelles Parish, 3 mi. SE of Marksville.
Number of parishes (counties): 64.
Largest cities (1950 Census): New Orleans (570,445); Shreveport (127,206); Baton Rouge (125,629); Lake Charles (41,272); Monroe (38,572).
State forests: 1 (8,000 ac.).
State parks: 12 (11,731 ac.).
State general revenue (1953–54): $437,945,230.
State general expenditure (1953–54): $405,373,489.

Semitropical Louisiana, with much of its land below sea level, is a natural leader in sugar cane, sweet potatoes and rice production. This state, which still calls its counties parishes after the Spanish religious divisions, is also the nation's leading fur trapper with a rich annual bag of mink, muskrat, opossum and raccoon pelts. Other products of importance are sulfur, oil, natural gas, salt, cotton and lumber.

New Orleans, home of the Mardi Gras, avoids flooding only by an expensive levee and spillway system and the world's largest concentration of drainage pumps. Her industry is making increased use of raw materials from South and Central America. The Vieux Carré, in this Old World city, called by many the "Little Paris" of the New World, has some of the celebrated restaurants of the nation.

No state has a greater variety or abundance of game birds than Louisiana. Its state-owned wildlife sanctuaries are among the largest.

Hernando de Soto, in the year 1540, is usually considered the first white man to see the state, but claims are made for Narvaez, who is reputed to have seen the state as early as 1528.

MAINE

Capital: Augusta.
Governor: Edmund S. Muskie, Dem. (to Jan. 1957).
Entered Union & (rank): Mar. 15, 1820 (23).
Present constitution adopted: 1820.
Motto: *Dirigo* (I guide).
State flower: White pine cone and tassel (1895).
State tree: Pine tree.
State bird: Chickadee (1927).
State song: "State of Maine Song" (1937).
Nickname: Pine Tree State.
Origin of name: From the French province of Mayne.
1940 population & (rank): 847,226 (35).
1950 population & (rank): 913,774 (35).
1954 estimated population: 930,000.
Area & (rank): 33,215 sq. mi. (38).
Geographic center: In Piscataquis Co., 18 mi. N of Dover-Foxcroft.
Number of counties: 16.
Largest cities (1950 Census): Portland (77,634); Lewiston (40,974); Bangor (31,558); Auburn (23,134); South Portland (21,866).
State forests: 1 (21,000 ac.).
State parks: 6 (133,042 ac.).
State general revenue (1953): $80,001,043.
State general expenditure (1953): $78,531,246.

Maine, the largest potato grower in the nation, is supposed to be the political barometer of the nation because it holds its general election a little more than a month before the other states, a situation that has brought forth the popular expression, "As Maine goes, so goes the nation." But considering that the state invariably votes Republican, it is evident that the nation sometimes fails to follow it.

Maine has the largest forest area in the East, some 16,783,000 acres in timberland and, as a result, pulp, paper making and lumbering are leading industries. In addition to the potato crops, hay, oats, buckwheat and apples are grown. Manufacturing includes textiles, shoes and fruit canning. Much poultry is raised.

Acadia National Park, on Mount Desert Island, approximately 50 miles southeast of Bangor, offers one of the finest examples of mountain and ocean views to be found on the Atlantic.

With 2,500 lakes, hundreds of streams and a bracing summer climate, Maine is famous as a resort state. Fishing is excellent and deer, bear and other game are plentiful. Its city of Eastport is the most easterly city in the U. S., and York was the first chartered city (in 1642) in the nation.

MARYLAND

Capital: Annapolis.
Governor: Theodore R. McKeldin, Rep. (to Jan. 1959).
Entered Union & (rank): Apr. 28, 1788 (7).
Present constitution adopted: 1867.
Motto: *Fatti maschii, parole femine* (Manly deeds, womanly words).
State flower: Black-eyed susan (1918).
State tree: White oak (1941).
State bird: Baltimore oriole (1882).
State colors: Black and gold (1904).
State song: "Maryland! My Maryland!" (1939).
Nicknames: Free State; Old Line State.
Origin of name: In honor of Henrietta Maria (Queen of Charles I of England).
1940 population & (rank): 1,821,244 (28).
1950 population & (rank): 2,343,001 (24).
1954 estimated population: 2,602,000.
Area & (rank): 10,577 sq. mi. (41).
Geographic center: In Anne Arundel Co., 3 mi. E of Collington.
Number of counties: 23, plus 1 independent city.
Largest cities (1950 Census): Baltimore (949,708); Cumberland (37,679); Hagerstown (36,260); Frederick (18,142); Salisbury (15,141).
State forests: 10 (119,774 ac.).
State parks: 13 (10,550 ac.).
State general revenue (1954): $377,835,430.
State general expenditure (1954): $380,368,850.

Maryland, a leader in vegetable canning, is cut almost in two by the upthrust of Chesapeake Bay, and with its many streams in this area, it has probably the most river frontage of any of the states. The state is one of the largest chicken raisers in the East and the Chesapeake is the largest crabbing center in the world. In addition to all kinds of vegetables, the state also grows wheat, hay, corn, potatoes and barley. Coal, sand and gravel, cement and stone are the leading mineral products.

The manufacturing products of its cities range from airplanes, steel, clothing, chemicals to meat packing. Annapolis is the site of the U. S. Naval Academy. The State House, built in 1772, is the only one built in the Colonial period which is still in regular use by a state government. Baltimore, the largest city, is the site of the Johns Hopkins Hospital.

The Charter of Maryland was granted in 1632 to Lord Baltimore, who died before it had passed the Great Seal; and it was issued to his oldest son, Cecil. The first settlers landed at St. Marys in 1634.

MASSACHUSETTS

Capital: Boston.
Governor: Christian A. Herter, Rep. (to Jan. 1957).
Entered Union & (rank): Feb. 6, 1788 (6).
Present constitution adopted: 1780.
Motto: *Ense petit placidam sub libertate quietem* (By the sword we seek peace, but peace only under liberty).
State flower: Mayflower (1918).
State tree: American elm (1941).
State bird: Chickadee (1941).
State colors: Blue and gold (in flag and shield).
State song: None.
Nicknames: Bay State; Old Colony State.
Origin of name: From two Indian words meaning "great mountain place."
1940 population & (rank): 4,316,721 (8).
1950 population & (rank): 4,690,514 (9).
1954 estimated population: 4,954,000.
Area & (rank): 8,257 sq. mi. (44).
Geographic center: In Worcester Co., in N part of city of Worcester.
Number of counties: 14.
Largest cities (1950 Census): Boston (801,444); Worcester (203,486); Springfield (162,399); Cambridge (120,740); Fall River (111,963).
State forests: 70 (170,000 ac.).
State parks: 7 (4,792 ac.).
State general revenue (1952): $407,352,000.
State general expenditure (1952): $438,004,000.

Massachusetts is the leading shoe producer in the U. S., and has been one of the leaders in the making of textiles since the beginning of American history. The top-ranking industries are machinery (including electrical machinery), leather, apparel and fabricated metals. Logan International Airport at East Boston, the nearest point in the U. S. to Europe, ranks among the world's greatest aerodromes. It has the longest commercial runway in the U. S. (10,022 ft.) and the longest air passenger terminal building in the world (3,053 ft.).

The most valuable agricultural products, ranked in order of importance, are hay, tobacco, cranberries, apples, potatoes, corn and tomatoes. There is also a large livestock industry.

The growth of factories brought to this state an influx of foreigners and today Boston has one of the largest Irish populations in the nation. Boston became prominent as the "Cradle of Liberty" in early days and it was here that Paul Revere rode from Christ Church on Copp's Hill and the Battle of Bunker Hill was fought.

Small glacial lakes are scattered throughout the state.

The Pilgrims landed at Plymouth Rock in 1620 as the first large group to settle here but legend has it that Eric the Red and his Norsemen saw the state in the year 1000.

MICHIGAN

Capital: Lansing.
Governor: G. Mennen Williams, Dem. (to Jan. 1957).
Organized as territory: Jan. 11, 1805.
Entered Union & (rank): Jan. 26, 1837 (26).
Present constitution adopted: 1908.
Motto: *Si quaeris peninsulam amoenam circumspice* (If you seek a pleasant peninsula, look around you).
State flower: Apple blossom (1897).
State bird: Robin (unofficial).
State animal: Wolverine (unofficial).
State song: "Michigan, My Michigan" (unofficial).
Nickname: Wolverine State.
Origin of name: From two Indian words meaning "great lake."
1940 population & (rank): 5,256,106 (7).
1950 population & (rank): 6,371,766 (7).
1954 estimated population: 7,024,000.

Area & (rank): 58,216 sq. mi. (22).
Geographic center: In Wexford Co., 5 mi. W of N of Cadillac.
Number of counties: 83.
Largest cities (1950 Census): Detroit (1,849,568); Grand Rapids (176,515); Flint (163,143); Dearborn (94,994); Saginaw (92,918).
State forests: 22 (3,736,500 ac.).
State parks: 57 (166,453 ac.).
State general revenue (1953–54): $747,279,661.
State general expenditure (1953–54): $709,321,475.

On a map of Michigan, draw an eighty-five-mile circle around Detroit and it will contain the home plants of the companies that make nine out of ten American automobiles. This industry, which sprang up about fifty years ago from the carriage-building business, is not the only activity of this state. Airplane parts, furniture (Grand Rapids is the furniture center of the U. S.), diesel engines, hoists, pumps, boilers are among its leading items of production. Most of the nation's refrigerators are made in Michigan. On its farms are grown dry beans, grapes, peaches, potatoes, sugar beets and other food crops.

Michigan is the only state that is split completely in two parts. The northern peninsula is mining and timber country. The southern part is agricultural and manufacturing country. Connecting Lakes Superior and Huron is the busiest canal in the world—the Sault Ste. Marie. Its 11,037 inland lakes and 2,242 miles of Great Lakes shoreline make Michigan a good vacation land.

Michigan has the greatest inland fisheries in the world and markets at least 20 species from carp, trout, perch, pike to lake herring. The artificial ski jump on Iron Mountain is probably the highest in the world.

Jacques Cartier, in 1535, was the first white man to see the state.

MINNESOTA

Capital: St. Paul.
Governor: Orville L. Freeman, Dem. (to Jan. 1957).
Organized as territory: Mar. 3, 1849.
Entered Union & (rank): May 11, 1858 (32).
Present constitution adopted: 1858.
Motto: *L'Etoile du Nord* (The North Star).
State flower: Moccasin flower (1902).
State tree: Norway pine.
State bird: None.
State song: "Hail Minnesota."
Nicknames: North Star State; Gopher State.
Origin of name: From a Dakota Indian word meaning "sky-tinted water."
1940 population & (rank): 2,792,300 (18).
1950 population & (rank): 2,982,483 (18).
1954 estimated population: 3,103,000.
Area & (rank): 84,068 sq. mi. (11).
Geographic center: In Crow Wing Co., 10 mi. SW of Brainerd.
Number of counties: 87.
Largest cities (1950 Census): Minneapolis (521,718); St. Paul (311,349); Duluth (104,511); Rochester (29,885); St. Cloud (28,410).
State forests: 32 (2,037,065 ac.).
State parks: 61 (84,350 ac.).
State general revenue (1953): $336,329,000.
State general expenditure (1953): $320,553,000.

A few square miles of Northern Minnesota, in the Mesabi, Cuyuna and Vermilion Ranges, produce most of the nation's iron ore, and provide the activity for the port of Duluth. Farm and factory are equally important in Minnesota. Its farms produce oats, butter, eggs, milk, corn, wheat, potatoes, etc. Its factory production follows the pattern of the Midwest. Machinery, furniture, foundry products, etc. are manufactured.

Minneapolis is the trade center of the Northwest. Its twin city St. Paul, which faces it on the other side of the Mississippi River, is the nation's biggest publisher of calendars and law books.

With over 11,000 lakes, the state is famous for its fishing, hunting and trapping.

Minnesota has many famous resort regions. Travel business for 1954 was estimated to exceed $290 million.

In 1655, Radisson and Groseilliers, French traders from Canada, were the first white men to see the state.

MISSISSIPPI

Capital: Jackson.
Governor: Hugh L. White, Dem. (to Jan. 1956).*
Organized as territory: Apr. 7, 1798.
Entered Union & (rank): Dec. 10, 1817 (20).
Seceded from Union: Jan. 9, 1861.
Re-entered Union: Feb. 23, 1870.
Present constitution adopted: 1890.
Motto: *Virtute et armis* (By valor and arms).
State flower: Flower or bloom of the magnolia or evergreen magnolia (1952).
State tree: Magnolia (1938).
State bird: Mockingbird (1944).
State song: "Way Down South in Mississippi" (1948).
Nickname: Magnolia State.
Origin of name: From an Indian word meaning "Father of Waters."
1940 population & (rank): 2,183,796 (23).
1950 population & (rank): 2,178,914 (26).
1954 estimated population: 2,204,000.
Area & (rank): 47,716 sq. mi. (31).
Geographic center: In Leake Co., 9 mi. N of W of Carthage.
Number of counties: 82.
Largest cities (1950 Census): Jackson (98,271); Meridian (41,893); Biloxi (37,425); Greenville (29,936); Hattiesburg (29,474).
State forests: 1 (1,760 ac.).
State parks: 10 (10,972 ac.).
State general revenue (1950): $132,573,383.20.
State general expenditure (1950): $134,463,877.57.

* Gubernatorial run-off Democratic primary was won by J. P. Coleman on Aug. 23, 1955.

Mississippi, the stronghold of the Old South, has until the past decade been one of the least industrialized states, with more than half its population making a living from the soil. A recent program of industrialization, however, has attracted numerous manufacturing concerns. Cotton, nevertheless, is still king. The world's largest

cotton plantation of 35,000 acres is located at Scott. Other crops are corn, peanuts, oats, pecans, soybeans, rice, tung nuts, sugar cane and hay.

Mississippi's Central Hills have produced a serious soil-erosion problem due to the over-emphasis placed on cotton growing through the years. Introduction of livestock and dairying and the pasture improvement programs attendant to it have helped in recent years to remedy this situation.

Mississippi was first to ratify the 18th Amendment and is still one of the two states (the other, Oklahoma) that bans the sale of hard liquor. In 1950, it had the third largest Negro population in the U. S.

The state abounds in historical landmarks and is the home of the Vicksburg National Military Park commemorating Grant's victory on this site.

MISSOURI

Capital: Jefferson City.
Governor: Phil M. Donnelly, Dem. (to Jan. 1957).
Organized as territory: June 4, 1812.
Entered Union & (rank): Aug. 10, 1821 (24).
Present constitution adopted: 1945.
Motto: *Salus populi suprema lex esto* (The welfare of the people shall be the supreme law).
State flower: Hawthorn (1923).
State bird: Bluebird (1927).
State colors: Red, white and blue (1913).
State song: "Missouri Waltz" (1949).
Nickname: Show-me State.
Origin of name: From an Indian word probably meaning "muddy water."
1940 population & (rank): 3,784,664 (10).
1950 population & (rank): 3,954,653 (11).
1954 estimated population: 4,154,000.
Area & (rank): 69,674 sq. mi. (18).
Geographic center: In Miller Co., 20 mi. SW of Jefferson City.
Number of counties: 114, plus 1 independent city.
Largest cities (1950 Census): St. Louis (856,796); Kansas City (456,622); St. Joseph (78,588); Springfield (66,731); University City (39,892).
State forests: 7 (150,000 ac.).
State parks: 23 (58,090 ac.).
State general revenue (1950): $273,231,000.
State general expenditures (1950): $275,135,000.

Missouri, touching both South and North, ranks highest in mining lead, making corncob pipes and breeding mules. Sometimes called the "saddle horse capital of the world" because of its excellent breeds, this state also grows corn, wheat, oats, barley, potatoes, tobacco and cotton on its fertile table land climbing to the Ozark Mountains. This country of rugged, timbered hills and deep valleys, has more than 10,000 swift-flowing streams. It produces automobiles, shoes, drugs, chemicals, beer and street cars.

Eads Bridge, spanning the Mississippi River at St. Louis, probably handles more freight cars than any other bridge in the world. Bagnell Dam, across the Osage River in the Ozarks, completed in 1931, created one of the largest artificial lakes in the world, running for 129 miles and having a shoreline that extends for approximately 1,300 miles.

The homes of two of Missouri's most publicized sons—Mark Twain and Jesse James—are tourist attractions.

Missouri, like Kentucky, had a star in the Confederate flag because a minority of the state legislature adopted an ordinance of secession. The Governor and pro-secession legislature, however, were ousted and the state remained in the Union throughout the Civil War.

MONTANA

Capital: Helena.
Governor: J. Hugo Aronson, Rep. (to Jan. 1957).
Organized as territory: May 26, 1864.
Entered Union & (rank): Nov. 8, 1889 (41).
Present constitution adopted: 1889.
Motto: *Oro y plata* (Gold and silver).
State flower: Bitterroot (1895).
State tree: Ponderosa pine (1949).
State bird: Western meadow lark (1931).
State song: "Montana" (1945).
Nickname: Treasure State.
Origin of name: Chosen from Mexican dictionary by J. M. Ashley. It is a Mexicanized Spanish word.
1940 population & (rank): 559,456 (39).
1950 population & (rank): 591,024 (42).
1954 estimated population: 628,000.
Area & (rank): 147,138 (3).
Geographic center: In Fergus Co., 12 mi. W of Lewistown.
Number of counties: 56, plus small part of Yellowstone National Park.
Largest cities (1950 Census): Great Falls (39,214); Butte (33,251); Billings (31,834); Missoula (22,485); Helena (17,581).
State forests: 7 (235,876 ac.).
State parks: 4 (2,802 ac.).
State general revenue (1953–54): $64,987,334.
State general expenditure (1953–54): $83,991,839.

Montana's story is the old Western story—few settlers until a gold strike in 1858 brought an influx. Mining is its present occupation, and lead, zinc, silver, coal and oil are taken from its earth.

Butte, sitting on the "richest hill in the world," is the center of the area that once supplied half of the U. S. copper (its most important mineral). Livestock, wool, lumber and dude ranching round out its interests. Agriculture in the state is dependent on irrigation.

The state as a whole still possesses the frank character of the old days, reflected in the legend that the only reason Helena was selected as the name to replace Last Chance Gulch was because of the suggestion of profanity in the front part of that name. Glacier National Park is a popular tourist area with its rugged scenery, hunting areas and dude ranches. While little development has as yet been made, Montana offers fine potentialities for winter sports. Snow conditions are good throughout the winter in the National Forest Service areas.

NEBRASKA

Capital: Lincoln.
Governor: Victor E. Anderson, Rep. (to Jan. 1957).
Organized as territory: May 30, 1854.
Entered Union & (rank): Mar. 1, 1867 (37).
Present constitution adopted: 1875.
Motto: Equality before the law.
State flower: Goldenrod (1895).
State tree: American elm (1937).
State bird: Western meadow lark (1929).
State song: "My Nebraska" (unofficial).
Nickname: Cornhusker State.
Origin of name: From an Oto Indian word meaning "flat water."
1940 population & (rank): 1,315,834 (32).
1950 population & (rank): 1,325,510 (33).
1954 estimated population: 1,366,000.
Area & (rank): 77,237 sq. mi. (14).
Geographic center: In Custer Co., 10 mi. NW of Broken Bow.
Number of counties: 93.
Largest cities (1950 Census): Omaha (251,117); Lincoln (98,884); Grand Island (22,682); Hastings (20,211); North Platte (15,433).
State forests: 2.
State parks: 7 (1,036 ac.).
State general revenue (1950): $87,098,000.
State general expenditure (1950): $84,216,000.

Nebraska lives by its expansive sea of grain, reflected in its bumper crops of rye, corn and wheat. There are more varieties of grass growing in this state, valuable for forage, than in any other state in the nation. Its sizable cattle and hog industry help to make Omaha a great stockyard and meat-packing center. Flour, freight cars, farm machinery, precision instruments, brick and tile are products of Nebraska.

Oil was discovered in Nebraska in 1939, and natural gas in 1949. The state was 17th in oil production in the U. S. for 1954.

In 1937, Nebraska became the only state in the Union to have a unicameral (one-house) legislature. Members are elected to it without party designation.

NEVADA

Capital: Carson City.
Governor: Charles H. Russell, Rep. (to Jan. 1959).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Oct. 31, 1864 (36).
Present constitution adopted: 1864.
Motto: All for our country.
State flower: Sagebrush (1917).
State tree: Pinion pine (official).
State bird: Mountain bluebird (unofficial).
State colors: Blue and silver (unofficial).
State song: "Home Means Nevada" (1933).
Nicknames: Sagebrush State; Silver State.
Origin of name: Spanish: meaning "snow-clad."
1940 population & (rank): 110,247 (48).
1950 population & (rank): 160,083 (48).
1954 estimated population: 218,000.
Area & rank: 110,540 (6).
Geographic center: In Lander Co., 23 mi. SE of Austin.
Number of counties: 17.
Largest cities (1950 Census): Reno (32,497); Las Vegas (24,624); Sparks (8,203); Elko (5,393); North Las Vegas (3,875).
State forests: None.
State parks: 5 (1,700 ac.).
State general revenue (1955): $27,762,750.
State general expenditure (1955): $29,735,553.

Nevada, the smallest state in population, had in 1950 about one and one-half persons per square mile. It was made famous by the discovery of the fabulous Comstock Lode in 1859, and has since lived mainly on its mines which give up large quantities of gold, silver, copper, lead, zinc, quicksilver and tungsten. Oil was discovered for the first time in Feb. 1954.

In 1931, the state created a new industry by writing an easy divorce law and Reno has since become the "divorce capital of the nation." Gambling was legalized and the gaming tables now pay a two-per cent tax to add to the state's income.

Near Las Vegas, on the Colorado River, stands the Hoover Dam which has twice changed its name (Hoover to Boulder to Hoover).

The state's agricultural crop consists mainly of hay, wheat, barley and potatoes.

Nevada was the first state to use gas for capital punishment.

NEW HAMPSHIRE

Capital: Concord.
Governor: Lane Dwinell, Rep. (to Jan. 1957).
Entered Union & (rank): June 21, 1788 (9).
Present constitution adopted: 1784.
Motto: Live free or die.
State flower: Purple lilac (1919).
State tree: White birch (1947).
State bird: None.
State song: "Old New Hampshire" (1949).
Nickname: Granite State.
Origin of name: From the English county of Hampshire.
1940 population & (rank): 491,524 (45).
1950 population & (rank): 533,242 (44).
1954 estimated population: 532,000.
Area & (rank): 9,304 sq. mi. (43).
Geographic center: In Belknap Co., 3 mi. E of Ashland.
Number of counties: 10.
Largest cities (1950 Census): Manchester (82,732); Nashua (34,669); Concord (27,988); Portsmouth (18,830); Berlin (16,615).
State forests: 143 (55,769 ac.).
State parks: 33 (30,976 ac.).
State general revenue (1951): $37,270,931.
State general expenditure (1951): $39,374,070.

New Hampshire is the only state that ever played host at the formal conclusion of a foreign war when, in 1905, Portsmouth was the scene of the treaty ending the Russo-Japanese War. The sandy and stony loam of this state needs liberal fertilization for the growing of its principal crops—fruit, truck vegetables, corn, oats, hay and potatoes. Its chief manufacturing is the production of textiles, leather goods, pulp and paper products.

New Hampshire was the first state to declare its independence from Great Britain and to adopt a constitution. Mt. Washington has recorded some of the world's strongest wind velocities, the last recording of record proportions being registered at 231 miles per hour. The state also has the largest legislative body; it varies from 375 to 400.

With 1,360 lakes and good climate for both winter sports and summer vacations, the state is highly popular as a resort area.

NEW JERSEY

Capital: Trenton.
Governor: Robert B. Meyner, Dem. (to Jan. 1958).
Entered Union & (rank): Dec. 18, 1787 (3).
Present constitution adopted: 1947.
Motto: Liberty and prosperity.
State flower: Purple violet (1913).
State bird: Eastern goldfinch (1935).
State tree: Red oak (1950).
State colors: Blue and gold.
State song: None.
Nickname: Garden State.
Origin of name: From the Channel Isle of Jersey.
1940 population & (rank): 4,160,165 (9).
1950 population & (rank): 4,835,329 (8).
1954 estimated population: 5,250,000.
Area & (rank): 7,836 sq. mi. (45).
Geographic center: In Mercer Co., 5 mi. SE of the State capitol.
Number of counties: 21.
Largest cities (1950 Census): Newark (438,776); Jersey City (299,017); Paterson (139,336); Trenton (128,009); Camden (124,555).
State forests: 10 (60,327 ac.).*
State parks: 22 (20,505 ac.).*
State general revenue (1953–54): $397,484,647.
State general expenditure (1953–54): $402,255,817.

*1 forest, park and water reserve (54,200 ac.) and 1 forest and park area (6,200 ac.) are also being acquired.

New Jersey, situated in an area of wide industrial diversification between the major markets of Philadelphia and New York, is known as the crossroads of the East. Products from over 15,000 factories and shops can be delivered overnight to about 51 million people, representing 12 states and the District of Columbia. The greatest single industry is chemicals, and New Jersey is one of the foremost research centers of the world.

Of the total land area, 46% is forested and nearly 36% is devoted to agriculture. The state rates high in practically all garden vegetables. Among its fruit crops are the famous cultivated blueberries, which originated in New Jersey. The poultry industry is one of the principal phases of the state's agriculture, and dairying occupies a prominent place.

The oldest U. S. highway of any length was built in Sussex and Warren counties in 1650. Sandy Hook Lighthouse, built in 1764, is the oldest in point of service in the Western Hemisphere. Near Morristown is the Seeing Eye Training School, where dogs are trained to lead the blind.

Its fortunate topography and geographic location make New Jersey a popular resort state with over 100 resort areas. Wooded hills in the north and over 55 beaches on its 120 mile seashore, from Sandy Hook to Cape May, are favorite tourist attractions. There are over 1,400 miles of trout streams. Lakes and ponds total over 800.

Garden State Parkway (toll) is now open from Bergen County to Cape May (163 mi.).

NEW MEXICO

Capital: Santa Fe.
Governor: John F. Simms (to Jan. 1957).
Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 6, 1912 (47).
Present constitution adopted: 1912.
Motto: *Crescit eundo* (It grows as it goes).
State flower: Yucca (1927).
State tree: Piñon (1949).
State bird: Road runner (1949).
State colors: Flaming red and golden orange (1915).
State song: "O, Fair New Mexico" (1916).
Nicknames: Land of Enchantment; Sunshine State.
Origin of name: From the country of Mexico.
1940 population & (rank): 531,818 (42).
1950 population & (rank): 681,187 (39).
1954 estimated population: 781,000.
Area & (rank): 121,666 sq. mi. (4).
Geographic center: In Torrance Co., 12 mi. W of S of Willard.
Number of counties: 32.
Largest cities (1950 Census): Albuquerque (96,815); Santa Fe (27,998); Roswell (25,738); Carlsbad (17,975); Clovis (17,318).
State forests: None.
State parks: 6 (16,018 ac.).
State general revenue (1952): $112,343,000.
State general expenditure (1952): $106,450,000.

Bilingual New Mexico is the only state where both English and Spanish are accepted as official languages. The two cultures of this state give it a picturesqueness that attracts many tourists. Mining and the raising of cattle and crops provide the state's chief interests. Irrigation is vital.

The state contains the largest Indian reservation in the U. S. with over 16,000,000 acres, habitated by the Navajo tribe. The Apaches and Utes live in three other reservations in this state (the Jicarilla Apache, at Horse Lake; the Mescalero Apache, northeast of Alamogordo; the Navajo, in San Juan and McKinley counties; and the Southern Ute, in the northern part of San Juan County). Carlsbad Caverns, the largest in the world, attract many visitors annually. The highest golf course in the world, over 9,000 feet above sea level, is near Alamogordo.

The state's dry and healthful climate makes it a great recuperative mecca for tuberculars. Santa Fe, the oldest seat of government in the U. S., was founded by the Spaniards in 1609–10.

Los Alamos is the site of an atomic-bomb laboratory. The first atomic explosion in history was at the Alamogordo air base.

NEW YORK

Capital: Albany.
Governor: W. Averell Harriman, Dem. (to Jan. 1959).
Entered Union & (rank): July 26, 1788 (11).
Present constitution adopted: 1777 (last revised 1938).
Motto: *Excelsior* (Ever Upward).
State flower: Rose (unofficial).
State tree: Sugar maple (unofficial).
State bird: Bluebird (unofficial).
State song: None.
Nickname: Empire State.

Origin of name: In honor of the English Duke of York.
1940 population & (rank): 13,479,142 (1).
1950 population & (rank): 14,830,192 (1).
1954 estimated population: 15,433,000.
Area & (rank): 49,576 sq. mi. (29).
Geographic center: In Madison Co., 6 mi. E of S of Oneida.
Number of counties: 62.
Largest cities (1950 Census): New York (7,891,957); Buffalo (580,132); Rochester (332,488); Syracuse (220,583); Yonkers (152,798).
State Forest Preserves: Adirondacks, 2,204,756 ac.; Catskills, 234,414 ac.
State parks: 81 (196,984 ac.).
State general revenue (1955): $1,159,155,104.
State general expenditure (1955): $1,158,127,725.

New York, with the great metropolis of New York City, is the spectacular nerve center of the nation. It leads in population, manufacturing, foreign trade, commercial and financial transactions, book and magazine publishing, theatrical production and a host of other fields.

New York City is not only a national but an international leader. It is the busiest seaport in the world; New York International Airport is the largest in the world. First in manufacturing since 1824, the city today has a gigantic clothing and fur industry and also makes chemicals, paints, drugs, machinery, paper, wood and textile products and houses the tallest buildings in the world. Nearly all the rest of the state's manufacturing is done along the Hudson River north to Albany and through the Mohawk Valley and Central New York to Buffalo. It includes planes, heavy and light electrical equipment, locomotives, radio and TV sets, auto bodies and parts, washing machines, typewriters, photographic and optical equipment, shirts and flour. Dairying, truck gardening, and the raising of potatoes, onions and cabbage keep the New York farmer prosperous. Wine-making is a major industry in the state.

New York's extremely rapid commercial growth may be partly attributed to Governor De Witt Clinton who pushed through the construction of the Erie Canal (Buffalo to Albany) which was opened in 1825.

The convention and tourist business is the state's fifth greatest source of income.

For a short time, New York City was the U. S. Capital and George Washington was inaugurated there as the first President on April 30, 1789.

Henry Hudson explored New York in 1609 in his trip up the river later named in his honor. On the basis of his explorations, the Dutch bought the island of Manhattan for $24 from the Indians in 1626.

NORTH CAROLINA

Capital: Raleigh.
Governor: Luther H. Hodges, Dem. (to Jan. 1957).
Entered Union & (rank): Nov. 21, 1789 (12).
Seceded from Union: May 20, 1861.
Re-entered Union: July 20, 1868.
Present constitution adopted: 1876.
Motto: *Esse quam videri* (To be rather than to seem) (1893).
State flower: Dogwood (1941).
State bird: Cardinal (1943).
State song: "The Old North State" (1927).
State colors: red and blue (1945).
Nickname: Tar Heel State.
Origin of name: In honor of Charles I of England.
1940 population & (rank): 3,571,623 (11).
1950 population & (rank): 4,061,929 (10).
1954 estimated population: 4,250,000.
Area & (rank): 52,712 sq. mi. (27).
Geographic center: In Chatham Co., 10 mi. NW of Sanford.
Number of counties: 100.
Largest cities (1950 Census): Charlotte (134,042); Winston-Salem (87,811); Greensboro (74,389); Durham (71,311); Raleigh (65,679).
State forests: 1.
State parks: 10 (35,164 ac.).
State revenue (all funds) (1953–54): $302,572,756.
State expenditure (all funds) (1953–54): $305,158,820.

North Carolina is the nation's largest tobacconist and textile producer. It holds first place in the Southeast in population and in the value of its industrial and agricultural production. This production is highly diversified, with furniture, chemicals and paper constituting enormous industries. Tobacco, corn, cotton, hay, peanuts and truck and vegetable crops are of major importance.

The state leads the South in social and economic reforms. Its educational pay scale is the same for white and Negro teachers.

There are 28 state and national parks and forests, including the Great Smoky Mountains National Park, the Blue Ridge Parkway and the new Cape Hatteras National Seashore. Mt. Mitchell, on the Parkway near Asheville, is the highest mountain in the Eastern U. S. (6,684 ft. above sea level).

The largest military reservation in the U. S. (Fort Bragg) and the largest Marine amphibious training base (Camp LeJeune) are in North Carolina.

The first English colony in America was established on Roanoke Island in 1585. Virginia Dare, born there in 1587, was the first child of English parentage born in America.

NORTH DAKOTA

Capital: Bismarck.
Governor: C. Norman Brunsdale, Rep. (to Jan. 1957).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Nov. 2, 1889 (39).
Present constitution adopted: 1889.
Motto: Liberty and union, now and forever: one and inseparable.
State flower: Wild prairie rose (1907).
State tree: American elm (1947).
State bird: Western meadow lark (1947).
State song: "North Dakota Hymn" (1947).
Nickname: Sioux State; Flickertail State.
Origin of name: From the Dakotah tribe, meaning "allies."
1940 population & (rank): 641,935 (39).
1950 population & (rank): 619,636 (41).
1954 estimated population: 636,000.
Area & (rank): 70,665 sq. mi. (16).
Geographic center: In Sheridan Co., 5 mi. SW of McClusky.

Number of counties: 53.
Largest cities (1950 Census): Fargo (38,256); Grand Forks (26,836); Minot (22,032); Bismarck (18,640); Jamestown (10,697).
State forests: None.
State parks: 5 (2,981 ac.).
State collections (1953): $83,690,699.
State disbursements (1953): $81,578,157.

North Dakota, politically progressive, operates the only state-owned bank, flour mill and grain elevator in the nation. The state owes its main activity to agriculture with over 87 per cent of its acreage devoted to the growth of barley, wheat, rye, oats and livestock. Most of its manufacturing consists of dairy products.

The finest farming land is in the Red River Valley, celebrated in song. Cattle raising is centered in the Missouri Valley.

"Number One Northern Hard," a wheat first grown in this state, still brings premium prices for its excellence of quality.

The completion of Garrison Dam on the Missouri River will result in extensive irrigation and the production of 400,000 kw. of electricity for use in the Missouri Basin areas.

In 1951, oil was discovered near Tioga by the Amerada Petroleum Corp. Geologists believe that the state holds two-thirds of our lignite.

The geographic center of the North American continent is located in Pierce County, latitude 48°10′N, longitude 100°10′W.

OHIO

Capital: Columbus.
Governor: Frank J. Lausche, Dem. (to Jan. 1957).
Entered Union & (rank): Mar. 1, 1803 (17).
Present constitution adopted: 1851.
Motto: *Imperium in imperio* (An empire within an empire) (unofficial).
State flower: Scarlet carnation (1904).
State bird: Cardinal (1933).
State song: None.
Nickname: Buckeye State.
Origin of name: From an Iroquoian word meaning "great river."
1940 population & (rank): 6,907,612 (4).
1950 population & (rank): 7,946,627 (5).
1954 estimated population: 8,554,000.
Area & (rank): 41,222 sq. mi. (34).
Geographic center: In Delaware Co., 25 mi. N of Columbus.
Number of counties: 88.
Largest cities (1950 Census): Cleveland (914,808); Cincinnati (503,998); Columbus (375,901); Toledo (303,616); Akron (274,605).
State forests: 20 (145,281 ac.).
State parks: 55 (22,074 ac.).
State general revenue (1954): $940,013,516.
State general expenditure (1954): $920,284,080.

With vast coal and oil fields on the one hand, with Great Lakes iron ore close by on the other, Ohio automatically developed into one of the nation's greatest industrial states. The vast and varied factory output of its cities runs from wire, nails, nuts, bolts, paper, radios, cash registers, golf clubs, refrigerators to motors of all kinds and sizes. Cleveland is one of the world's largest handlers of iron ore. Toledo is the nation's largest shipper of coal. Akron makes most of the automobile tires used in the U. S.

Ohio's thousands of factories almost overshadow its importance in two other basic industries—mining and agriculture. Its fertile soil produces soy beans, corn, wheat, grapes and tobacco. Dairying and greenhouse products are important. Mining is centered in coal, oil, sand, gravel and clay.

Ohio has sent to the White House eight men, six of whom were elected from that state and two of whom were born in Ohio but elected from other states.

In 1749, Céleron, a French officer, reached the Ohio River from Canada and claimed the area for the French, disregarding the grants of the British Kings.

OKLAHOMA

Capital: Oklahoma City.
Governor: Raymond D. Gary, Dem. (to Jan. 1959).
Organized as territory: May 2, 1890.
Entered Union & (rank): Nov. 16, 1907 (46).
Present constitution adopted: 1907.
Motto: *Labor omnia vincit* (Labor conquers all things).
State flower: Mistletoe (1893).
State tree: Redbud (1937).
State bird: Scissor-tailed Flycatcher (1951).
State colors: Green and white (1915).
State song: "Oklahoma" (Rodgers-Hammerstein) (1953).
Nickname: Sooner State.
Origin of name: From two Choctaw Indian words meaning "red people."
1940 population & (rank): 2,336,434 (22).
1950 population & (rank): 2,233,351 (25).
1954 estimated population: 2,268,000.
Area & (rank): 69,919 sq. mi. (17).
Geographic center: In Oklahoma Co., 8 mi. N of Oklahoma City.
Number of counties: 77.
Largest cities (1950 Census): Oklahoma City (243,504); Tulsa (182,740); Muskogee (37,289); Enid (36,017); Lawton (34,757).
State forests: None.
State parks: 13 (51,660 ac.).
State general revenue (1954): $292,507,602.
State general expenditure (1954): $300,105,227.

Oil has made Oklahoma a rich state and Tulsa one of the world's wealthiest cities per capita. The smelting of zinc, oil refining, meat packing and flour milling are its chief factory industries. Wheat, corn, oats, cotton, sorghums and potatoes are its agricultural crops of chief importance.

In 1834, Oklahoma was set aside as Indian Territory. It remained so until Apr. 22, 1889, when the first opening to homestead settlement occurred. On that one day, 50,000 people swarmed in, and the term "sooners" was born to apply to those who had sneaked into the state sooner than the noon deadline. A series of land openings by "runs" and lotteries extended through 1901, and sales by sealed bid of remaining lands were held in 1906 and 1910.

The state is one of the two in the nation (the other is Mississippi) which prohibits the sale of hard liquor.

OREGON

Capital: Salem.
Governor: Paul L. Patterson, Rep. (to Jan. 1959).
Organized as territory: Aug. 13, 1848.
Entered Union & (rank): Feb. 14, 1859 (33).
Present constitution adopted: 1859.
Motto: The Union (unofficial).
State flower: Oregon grape (1899).
State tree: Douglas fir (1939).
State bird: Western meadow lark (1927).
State song: "Oregon, My Oregon" (1927).
Nickname: Beaver State.
Origin of name: Unknown. However, it is generally accepted that the name, first used by Jonathan Carver in 1778, was taken from the writings of Maj. Robert Rogers, an English army officer.
1940 population & (rank): 1,089,684 (34).
1950 population & (rank): 1,521,341 (32).
1954 estimated population: 1,639,000.
Area & (rank): 96,981 sq. mi. (9).
Geographic center: In Crook Co., 25 mi. E of S of Prineville.
Number of counties: 36.
Largest cities (1950 Census): Portland (373,628); Salem (43,140); Eugene (35,879); Medford (17,305); Corvallis (16,207).
State forests: 720,000 ac. in 14 counties.
State Parks: 156 (55,053 ac.).
State general revenue (1954): $186,398,000.
State general expenditure (1954): $227,523,000.

Oregon, with the greatest U. S. reserve of standing timber, has a billion-dollar forestry industry. Its salmon fishing industry, centered at Astoria at the mouth of the Columbia River, is one of the world's largest.

In agriculture, the state leads in growing peppermint, holly, lily bulbs, caneberries, filberts, Blue Lake beans and cover seed crops, and also raises strawberries, hops, wheat and other grains, sugar beets, potatoes, green peas, fiber flax, dairy products, livestock and poultry.

Oregon's coast is lush and green with heavy rainfall and is noted for its scenic beauty. Crater Lake National Park, Mount Hood and Bonneville Dam on the Columbia are other tourist attractions.

With the low-cost electric power provided by Bonneville Dam and other hydroelectric dams in the Pacific Northwest, Oregon has developed steadily as a manufacturing state. Leading manufactures are lumber and lumber products, metalwork, machinery, aluminum, chemicals and paper.

PENNSYLVANIA

Capital: Harrisburg.
Governor: George M. Leader, Dem. (to Jan. 1959).
Entered Union & (rank): Dec. 12, 1787 (2).
Present constitution adopted: 1874.
Motto: Virtue, liberty and independence.
State flower: Mountain laurel (1933).
State tree: Hemlock (1931).
State bird: Ruffed grouse (1931).
State colors: Blue and gold.
State song: None.
Nickname: Keystone State.
Origin of name: In honor of Adm. Sir William Penn, father of William Penn. It means "Penn's Woodland."
1940 population & (rank): 9,900,180 (2).
1950 population & (rank): 10,498,012 (3).
1954 estimated population: 10,779,000.
Area & (rank): 45,333 sq. mi. (32).
Geographic center: In Center Co., 2 1/2 mi. SW of Bellefonte.
Number of counties: 67.
Largest cities (1950 Census): Philadelphia (2,071,605); Pittsburgh (676,806); Erie (130,803); Scranton (125,536); Reading (109,320).
State forests: 23 (1,833,529 ac.).
State parks: 117 (137,886 ac.).
State revenue (Est. 1953–55): $1,098,900,000.
State expenditure (Est. 1953–55): $1,089,074,000.

From the steel mills of Pittsburgh through the mid-state coal mines and oil wells to the shipyards and factories of Philadelphia, Pennsylvania bristles with heavy industry. Approximately 30% of all American iron and steel is made in Pennsylvania. Other manufactures include locomotives, boilers, engines, blast furnaces, trucks, busses, wire, textiles, knit goods and nylon and rayon products. Virtually all of the U. S. anthracite (hard coal) deposits are located in Pennsylvania.

Agricultural products include apples, peaches, potatoes, corn, hay, barley, wheat, buckwheat and tobacco.

Pennsylvania is rich in historical lore. Philadelphia was the seat of the Federal government almost continuously from 1776 until 1800, and there the Declaration of Independence was signed and the Constitution drawn up. Valley Forge, of the Revolution, and Gettysburg, the turning-point of the Civil War, are both in Pennsylvania. The Liberty Bell stands in Independence Square in Philadelphia.

Henry Hudson sailed into Delaware Bay in 1609, following his trip up the Hudson River. In 1681, William Penn, the Quaker, founded its first colony.

RHODE ISLAND

Capital: Providence.
Governor: Dennis J. Roberts, Dem. (to Jan. 1957).
Entered Union & (rank): May 29, 1790 (13).
Present constitution adopted: 1843.
Motto: Hope.
State flower: Violet (unofficial).
State tree: Maple (unofficial).
State bird: Rhode Island Red (official).
State colors: Blue, white and gold (in state flag).
Song: "Rhode Island" (1946).
Nickname: Little Rhody.
Origin of name: From the Greek island of Rhodes.
1940 population & (rank): 731,346 (36).
1950 population & (rank): 791,896 (36).
1954 estimated population: 824,000.
Area & (rank): 1,214 sq. mi. (48).
Geographic center: In Kent Co., 2.8 mi. S. by W. of Crompton.
Number of counties: 5.

Largest cities (1950 Census): Providence (248,674); Pawtucket (81,436); Cranston (55,060); Woonsocket (50,211); Warwick (43,028).
State forests: 9 (15,600 ac.).
State parks: 11 (5,700 ac.).
State general revenue (1954): $64,637,463.
State general expenditure (1954): $61,772,508).

Little Rhode Island (it would fit into Texas 220 times), with the greatest density of population barring the District of Columbia, boasts the highest proportion of industrial workers of all the states. Leading industry is textiles, largely concentrated in Pawtucket, Providence and Woonsocket.

Providence is also one of the largest U. S. jewelry centers, and is important in the production of machinery and metal products.

With more than eight-tenths of the population living in urban areas, adjacent parts of the state are interested in dairying, poultry and truck farming. Potatoes, corn, apples, oats and hay lead the crop list. Of the state's land area, about one-seventh is farm cropland and open pasture; two-thirds is forested.

Newport is the site of the Naval War College and was long a show place for the luxurious summer homes built by some of New York's wealthiest people. The U. S. Naval Air Station is at Quonset in the town of North Kingstown.

Roger Williams founded Providence, and subsequently Rhode Island, in 1636 after he had been banished from Massachusetts for nonconformance to religious doctrine.

SOUTH CAROLINA

Capital: Columbia.
Governor: George B. Timmerman, Jr., Dem. (to Jan. 1959).
Entered Union & (rank): May 23, 1788 (8).
Seceded from Union: Dec. 20, 1860.
Re-entered Union: July 18, 1868.
Present constitution adopted: 1895.
Mottoes: *Animus opibusque parati* (Prepared in minds and resources) and *Dum spiro spero* (While I breathe, I hope).
State flower: Carolina yellow jessamine (1924).
State tree: Palmetto tree (1939).
State bird: Carolina wren (1948).
State song: "Carolina" (1911).
Nickname: Palmetto State.
Origin of name: Same as for North Carolina.
1940 population & (rank): 1,899,804 (26).
1950 population & (rank): 2,117,027 (27).
1954 estimated population: 2,238,000.
Area & (rank): 31,055 sq. mi. (39).
Geographic center: In Richland Co., 13 mi. SE of Columbia.
Number of counties: 46.
Largest cities (1950 Census): Columbia (86,914); Charleston (70,174); Greenville (58,161); Spartanburg (36,795); Rock Hill (24,502).
State forests: 4 (123,000 ac.).
State parks: 22 (46,000 ac.).
State total revenue (1951–52): $158,075,000.
State general expenditure (1951–52): $150,386,210.

Once primarily agricultural, South Carolina has built so many big cotton textile mills that today the state's factories double the output of its farms in cash value. Agriculture has not, however, been completely replaced and today its chief crops are cotton, tobacco, peaches, corn, hay, oats, sweet potatoes and peanuts which are enhanced by the recent development of modern soil-conservation methods. Charleston makes asbestos, wood, pulp and steel products.

Civil War hostilities were started in this state at Charleston, when, on April 12, 1861, South Carolina men bombarded and captured Fort Sumter. In Charleston harbor the first submarine was used in warfare.

Vasquez de Ayllon, who came from Santo Domingo with about 500 settlers in 1526, made the first attempt to colonize this state but the expedition was later wiped out by Indians. In succeeding years, Spanish attempts were successful.

SOUTH DAKOTA

Capital: Pierre.
Governor: Joseph J. Foss, Rep. (to Jan. 1957).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Nov. 2, 1889 (40).
Present constitution adopted: 1889.
Motto: Under God the people rule.
State flower: American pasqueflower (1903).
State tree: Black Hills spruce (1947).
State bird: Ring-necked pheasant (1943).
State animal: Coyote (1949).
State colors: Blue and gold (in state flag).
State song: "Hail! South Dakota" (1943).
Nicknames: Sunshine State; Coyote State.
Origin of name: Same as for North Dakota.
1940 population & (rank): 642,961 (38).
1950 population & (rank): 652,740 (40).
1954 estimated population: 667,000.
Area & (rank): 77,047 sq. mi. (15).
Geographic center: In Hughes Co., 8 mi. NE of Pierre.
Number of counties: 67.
Largest cities (1950 Census): Sioux Falls (52,696); Rapid City (25,310); Aberdeen (21,051); Huron (12,788); Watertown (12,699).
State forests: 4 (86,000 ac.).
State parks: 10 (80,000 ac.).*
State general revenue (1954): $76,741,526.
State general expenditure (1954): $77,660,618.

*The acreage shown includes 46 recreation areas and 31 roadside parks in addition to the 10 state parks.

Seventy-five per cent of the population of South Dakota is actively interested in agriculture. Its leading crops are rye, barley, oats, corn, wheat. Cattle raising and dairying are its stronger industries. The richest U. S. gold mine, the Homestake, is at Lead.

The Black Hills, a great tourist attraction, are the highest mountains east of the Rockies. Mt. Rushmore, in this group, is celebrated for the likenesses of Washington, Jefferson, Lincoln and Theodore Roosevelt, which were carved in stone by the late Gutzon Borglum. The Badlands offer very scenic masses of bare rock and clay unrelieved by any vegetation. It was in this state that the Sioux Indians, angered at the influx of the white men who were searching for gold, started the hostilities which ended in Custer's Massacre, on June 25, 1876, in Montana.

TENNESSEE

Capital: Nashville.
Governor: Frank G. Clement, Dem. (to Jan. 1959).
Entered Union & (rank): June 1, 1796 (16).
Seceded from Union: June 24, 1861.
Re-entered Union: July 24, 1866.
Present constitution adopted: 1870, amended for first time 1953.
Motto: Agriculture, commerce.
State flower: Iris (1933).
State tree: Tulip poplar (1947).
State bird: Mockingbird (1933).
Songs: "My Homeland, Tennessee" (1925) and "When It's Iris Time in Tennessee" (1935).
Nickname: Volunteer State.
Origin of name: From the name of the ancient capital of the Cherokee tribe.
1940 population & (rank): 2,915,841 (15).
1950 population & (rank): 3,291,718 (16).
1954 estimated population: 3,362,000.
Area & (rank): 42,246 sq. mi. (33).
Geographic center: In Rutherford Co., 5 mi. NE of Murfreesboro.
Number of counties: 95.
Largest cities (1950 Census): Memphis (396,000); Nashville (174,307); Chattanooga (131,041); Knoxville (124,769); Jackson (30,207).
State forests: 13 (143,742 ac.).
State parks: 17 (125,318 ac.).
State general revenue (1953–54): $276,721,000.
State general expenditure (1953–54): $275,212,000.

Tennessee won world prominence in 1945, for the atom bomb was made possible by the Clinton Engineer Works at Oak Ridge.

The state is now predominately industrial, with production including chemicals, food, textiles, virgin aluminum, shoes, lumber products, and metal work. Mineral products include phosphates, zinc, copper, lead, sinter iron, pyrites, high-grade pottery clay, coal and marble. Tennessee's agricultural production includes livestock, cotton, corn, tobacco, hay, dairy products, poultry and eggs.

Tennessee is the home of TVA which operates 29 dams and distributes power from 3 dams on the Cumberland River maintained by the Army Corps of Engineers. Benefits of flood control, navigation and electrical power reach into 6 other states (Kentucky, Alabama, North Carolina, Georgia, Virginia, and Mississippi). The Tennessee River, already the most completely used major river in the world, is insufficient to supply energy needs, and the power system is being doubled by use of steam generating plants.

TEXAS

Capital: Austin.
Governor: Allan Shivers, Dem. (to Jan. 1957).
Entered Union & (rank): Dec. 29, 1845 (28).
Seceded from Union: Mar. 2, 1861.
Re-entered Union: Mar. 30, 1870.
Present constitution adopted: 1876.
Motto: Friendship.
State flower: Bluebonnet (1901).
State tree: Pecan (1919).
State bird: Mockingbird (1927).
State song: "Texas, Our Texas" (1930).
Nickname: Lone Star State.
Origin of name: From an Indian word meaning "friends."
1940 population & (rank): 6,414,824 (6).
1950 population & (rank): 7,711,194 (6).
1954 estimated population: 8,468,000.
Area & (rank): 267,339 sq. mi. (1).
Geographic center: In McCulloch Co., 20 mi. NE of Brady.
Number of counties: 254.
Largest cities (1950 Census): Houston (596,163); Dallas (434,462); San Antonio (408,442); Fort Worth (278,778); Austin (132,459).
State forests: 5 (6,510 ac.).
State parks: 48.
State revenue receipts (1953–54): $796,551,815
State governmental cost (1953–54): $706,121,196

Big, sprawling, vigorous Texas, comprising one-twelfth of the entire area of the United States, is the richest political subdivision in the world with the possible exception of the Russian Ukraine, and is the only state that may, by Congressional statute, divide into five parts if it so desires. There is very little possibility of this ever being done because Texas and Texans live by its bigness. Texas is a natural leader in oil, natural gas, cotton, cattle, helium, sulfur, sheep, wool, onions and turkeys.

The distance from El Paso to Beaumont is a greater distance than from New York to Chicago. Texas supports possibly the most ardent local enthusiasts in the nation, who are always quick to boast of her.

Over the Neches River, at Port Arthur, is the most elevated highway bridge in the world. In Pecos County is the deepest hole in the world—an oil well of 15,279 feet.

Cabeza de Vaca explored the state in 1528. Since 1685, it has been under the jurisdiction of 6 separate governments: those of France, Spain, Mexico, the Republic of Texas, the Confederacy and the United States.

UTAH

Capital: Salt Lake City.
Governor: J. Bracken Lee, Rep. (to Jan. 1957).
Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 4, 1896 (45).
Present constitution adopted: 1896.
Motto: Industry.
State flower: Sego lily (1911).
State tree: Blue spruce (1933).
State bird: Seagull (1955).
State emblem: Beehive.
State song: "Utah, We Love Thee."
Nickname: Beehive State.
Origin of name: From the Ute tribe, meaning "people of the mountains."
1940 population & (rank): 550,310 (41).
1950 population & (rank): 688,862 (38).
1954 estimated population: 757,000.
Area & (rank): 84,916 sq. mi. (10).
Geographic center: In Sanpete Co., 3 mi. N of Manti.
Number of counties: 29.
Largest cities (1950 Census): Salt Lake City (182,121); Ogden (57,112); Provo (28,937); Logan (16,832); Murray (9,006).
State forests: None.
State parks: 3 (10 ac.).

State general revenue (1953–54): $112,425,841.
State general expenditure (1953–54): $110,962,709.

Utah, rich in natural resources, has long been recognized for its copper, gold, silver, lead and zinc. Also, it produces all the elements necessary for the manufacture of steel: iron, lime, dolomite, fluorspar, manganese and coal for coking. Uranium mining has recently become a major industry. The state is also developing an oil industry, and this resource may become a major factor in Utah's economy.

Utah's crops requiring extensive irrigation include sugar beets, potatoes, hay, onions and wheat. Various garden crops, such as beans, peas and tomatoes, and fruits, such as pears, peaches, apples and apricots, make up an ever-growing industry. Eggs and commercial poultry are also among the products of Utah.

Brigham Young led the Mormons into the area in 1847. Six times in the next forty years, the area applied for statehood and was refused because polygamy was practiced. In 1896, when polygamy was abandoned by the Mormon Church, Utah was admitted into the Union.

Great Salt Lake, lying in the north central area, has long been a world wonder. It has no known outlet, and its salt content is about six times that of the ocean.

Spanish explorers in 1540 were probably the first whites in the area.

VERMONT

Capital: Montpelier.
Governor: Joseph B. Johnson, Rep. (to Jan. 1957).
Entered Union & (rank): Mar. 4, 1791 (14).
Present constitution adopted: 1793.
Motto: Vermont—freedom and unity.
State flower: Red clover (1894).
State tree: Sugar maple (1949).
State bird: Hermit thrush (1941).
State song: "Hail to Vermont" (1937).
Nickname: Green Mountain State.
Origin of name: From the French, meaning "green mountain."
1940 population & (rank): 359,231 (46).
1950 population & (rank): 377,747 (45).
1954 estimated population: 385,000.
Area & (rank): 9,609 sq. mi. (42).
Geographic center: In Washington Co., 4.5 mi. SSE of Roxbury Village.
Number of counties: 14.
Largest cities (1950 Census): Burlington (33,155); Rutland (17,659); Barre (10,922); Montpelier (8,599); St. Albans (8,552).
State forests: 24 (68,936 ac.).
State parks: 21 (6,226 ac.).
State revenue (1954): $44,865,773.
State expenditure (1954): $49,352,123.

Vermont, the only New England state without a seacoast (and the last to be settled because of this), leads the nation in marble, granite, asbestos and maple syrup production. In ratio to population it keeps more dairy cows than any other state. Vermont's soil is devoted to dairying, truck farming and fruit growing, its rugged area precluding extensive farming. This same quality, however, along with a bracing dry climate, makes the state popular as a summer resort and as a center of winter sports. Two-thirds of the total land area of the state is classified as forest land.

From 1777 to 1791, Vermont was an independent state of indefinite status with some national perquisites and then was the first state after the original thirteen to join the Union. It was also the first state to forbid slavery and the first to adopt universal manhood suffrage (1777). Vermont has been Republican since 1854; only Georgia on the Democratic side ties that record for consistency.

Samuel de Champlain, in 1609, was the first white man to see the state.

VIRGINIA

Capital: Richmond.
Governor: Thomas B. Stanley, Dem. (to Jan. 1958).
Entered Union & (rank): June 25, 1788 (10).
Seceded from Union: Apr. 17, 1861.
Re-entered Union: Jan. 27, 1870.
Present constitution adopted: 1902.
Motto: *Sic semper tyrannis* (Thus always to tyrants).
State flower: American dogwood (1918).
State bird: Cardinal.
State song: "Carry Me Back to Old Virginny" (1940).
Nicknames: The Old Dominion; Cavalier State.
Origin of name: In honor of Elizabeth, "Virgin Queen" of England.
1940 population & (rank): 2,677,773 (19).
1950 population & (rank): 3,318,680 (15).
1954 estimated population: 3,588,000.
Area & (rank): 40,815 sq. mi. (35).
Geographic center: In Appomattox Co., 11 mi S of E of Amherst.
Number of counties: 98, plus 32 independent cities.
Largest cities (1950 Census): Richmond (230,310); Norfolk (213,513); Roanoke (91,921); Portsmouth (80,039); Alexandria (61,787).
State forests: 6 (45,072 ac.).
State parks: 8 (24,073 ac.).
State revenue (1954): $403,915,301.
State expenditure (1954): $409,826,425.

The history of America is closely tied to that of Virginia, particularly in the colonial period. Jamestown, founded in 1607, was the first permanent English settlement in North America, and slavery was introduced there in 1619. The surrenders ending both the American Revolution and the Civil War occurred in Virginia. The state is called the "Mother of Presidents" because 8 chief executives of the U. S. were born there.

Points of historic interest include Mount Vernon and other places associated with Washington; Monticello, home of Jefferson; Stratford, home of the Lees; Richmond, capital of the Confederacy and of Virginia; and Williamsburg, the restored Colonial capital.

Among Virginia's natural wonders are the famous Natural Bridge and the limestone caverns of the Shenandoah Valley. The most important natural resources are beds of bi-

tuminous coal, forest lands, oyster beds and commercial fisheries.

Manufacturing includes chemicals, textiles, lumber and wood products, foods, transportation equipment (including shipbuilding), apparel and furniture. Agricultural products include livestock, poultry, dairy goods, tobacco, apples, grains and hay crops.

WASHINGTON

Capital: Olympia.
Governor: Arthur B. Langlie, Rep. (to Jan. 1957).
Organized as territory: Mar. 2, 1853.
Entered Union & (rank): Nov. 11, 1889 (42).
Present constitution adopted: 1889.
Motto: *Al-Ki* (Indian word meaning Bye and Bye).
State flower: Rhododendron (1949).
State tree: Hemlock (1947).
State bird: Goldfinch (1951).
State colors: Green and gold (1925).
State song: "Washington's Song" (1909).
Nicknames: Evergreen State; Chinook State.
Origin of name: In honor of Geo. Washington.
1940 population & (rank): 1,736,191 (30).
1950 population & (rank): 2,378,963 (23).
1954 estimated population: 2,540,000.
Area & (rank): 68,192 sq. mi. (19).
Geographic center: In Chelan Co., 10 mi. S of W of Wenatchee.
Number of counties: 39.
Largest cities (1950 Census): Seattle (467,591); Spokane (161,721); Tacoma (143,673); Yakima (38,486); Bellingham (34,112).
State forests: 2 (290,000 ac.).
State parks: 75 (60,000 ac.).
State general revenue funds (1954–55): $410,738,000.
State general expenditure (1954–55): $415,014,000.

Washington is one of the leaders in lumber production. Its rugged surface is rich in stands of Douglas fir, yellow and white pine, spruce, larch and cedar. The state's other first is apples. Food and lumber products and a wide variety of goods flow from Washington factories.

The Columbia River contains one third of the potential water power of America. Largest dam is Grand Coulee, greatest power producer in the world. Other mighty dams on the Columbia include Chief Joseph, Rock Island, Bonneville, McNay and The Dalles, which are shared with Oregon. There are 96 dams in Washington, built for various purposes including power, irrigation, flood control, game preserves, beautification, water storage, etc.

The Hanford Engineer Works, north of Pasco, has been set up as the world's first full-scale plant for atom bombs.

WEST VIRGINIA

Capital: Charleston.
Governor: William C. Marland, Dem. (to Jan. 1957).
Entered Union & (rank): June 20, 1863 (35).
Present constitution adopted: 1872.
Motto: *Montani semper liberi* (Mountaineers always free).
State flower: Rhododendron (1903).
State tree: Sugar maple (1949).
State bird: Cardinal (1949).
State animal: Black bear.
State colors: Blue and gold (unofficial).
State songs: "West Virginia, My Home Swee Home" (approved 1947 as one of songs c state); "West Virginia Hills" (by custom)
Nickname: Mountain State.
Origin of name: Same as for Virginia.
1940 population & (rank): 1,901,974 (25).
1950 population & (rank): 2,005,552 (29).
1954 estimated population: 1,947,000.
Area & (rank): 24,181 sq. mi. (40).
Geographic center: In Braxton Co., 4 mi. E c Sutton.
Number of counties: 55.
Largest cities (1950 Census): Huntingto (86,353); Charleston (73,501); Wheelin (58,891); Clarksburg (32,014); Parkersbur (29,684).
State forests: 10 (96,418 ac.).
State parks: 19 (38,752 ac.).
State general revenue (1953–54): $87,610,163.
State general expenditure (1953–54): $92,477, 887.

Mountainous West Virginia is the coa mining leader of the nation. Geologists be lieve that if all other U. S. coal mines shu down, West Virginia alone could supply th country for 250 years with its deposits o bituminous (soft) coal. The state also rank high in natural gas, oil, quarry product and hardwood lumber. Cattle is the mai product. Leading crops include wheat, corn oats, hay, tobacco and fruit.

West Virginia was created when its resi dents refused to secede from the Union an severed itself from Virginia during the Civi War era.

Like many mountain states, West Virginia has an equable climate without extremes White Sulphur Springs, in Greenbrier County is a famous health resort. Mountain streams give the state one of the highest U. S water-power potentials.

WISCONSIN

Capital: Madison.
Governor: Walter J. Kohler, Rep. (to Jan 1957).
Organized as territory: Apr. 20, 1836.
Entered Union & (rank): May 29, 1848 (30).
Present constitution adopted: 1848.
Motto: Forward.
State flower: Violet.
State tree: Sugar maple.
State bird: Robin.
State animal: Badger.
State fish: Musky (Muskellunge).
State song: "On Wisconsin" (unofficial).
Nickname: Badger State.
Origin of name: French corruption of an Indian word meaning "gathering of waters."
1940 population & (rank): 3,137,587 (13).
1950 population & (rank): 3,434,575 (14).
1954 estimated population: 3,578,000.
Area & (rank): 56,154 sq. mi. (25).
Geographic center: In Wood Co., 9 mi. SE o Marshfield.
Number of counties: 71.

Largest cities (1950 Census): Milwaukee (637,392); Madison (96,056); Racine (71,193); Kenosha (54,368); Green Bay (52,735).
State forests: 7 (293,789 ac.).
State parks: 29 (16,895 ac.).
State total net revenue, all funds (1953–54): $386,083,906.
State total net expenditure, all funds (1953–54): $381,723,654.

Wisconsin leads the U. S. in milk and cheese production. In 1954, the state produced 13% of the nation's total output of milk. Other important farm products are: potatoes, cabbage, maple sugar, cranberries and cherries. The state ranks first in producing peas, corn and beets for canning.

About 40 years ago Wisconsin's forests became exhausted, and since then manufacturing and food processing have become important. Automobiles, machinery, furniture, paper and beer are produced.

Wisconsin pioneered in social legislation, providing pensions for the blind (1907), aid to dependent children (1913) and old-age assistance (1925). In 1932, it was the first state to enact an unemployment compensation law. In labor legislation, the state has also pioneered in important laws, among them the first workmen's compensation law actually to take effect.

WYOMING

Capital: Cheyenne.
Governor: Millward L. Simpson, Rep. (to Jan. 1959).
Organized as territory: July 25, 1868.
Entered Union & (rank): July 10, 1890 (44).
Present constitution adopted: 1890.
Motto: *Cedant arma togae* (Let arms yield to the gown).
State flower: Indian paintbrush (1917).
State tree: Cottonwood (1947).
State bird: Meadow lark (1927).
State insignia: Bucking horse (unofficial).
State song: "Wyoming State Song" (unofficial).
Special legal holiday: Arbor Day (by governor's designation).
Nickname: Equality State.
Origin of name: From the Indian, meaning "mountains and valleys alternating"; named after the Wyoming Valley in Pa.
1940 population & (rank): 250,742 (47).
1950 population & (rank): 290,529 (47).
1954 estimated population: 312,000.
Area & (rank): 97,914 sq. mi. (8).
Geographic center: In Fremont Co., 58 mi. N of E of Lander.
Number of counties: 23, plus Yellowstone National Park.
Largest cities (1950 Census): Cheyenne (31,935); Casper (23,673); Laramie (15,581); Sheridan (11,500); Rock Springs (10,857).
State forests: None.
State parks: 2 (1,060 ac.).
State general revenue (1949–50): $42,246,000.
State general expenditure (1949–50): $41,618,000.

Wealthy in wool, cattle, oil and coal, Wyoming was first in U. S. history to insure woman's place in politics. In 1869, it gave women the vote and Mrs. Nellie Tayloe Ross, who held office in 1925–27, was the first U. S. woman governor.

Second in mean elevation to Colorado, Wyoming has many lures for the tourist trade, notably Yellowstone National Park. Cheyenne is famous for its annual "Frontier Days" celebration, which brings in visitors from everywhere. One of the world's largest subbituminous coal fields lies near Gillette. Big game hunting is good in many parts of the state.

SELF-GOVERNING U. S. TERRITORIES

ALASKA

Capital: Juneau.
Governor: B. Frank Heintzleman (to Apr. 1957).
Organized as territory: 1912.
Territorial flower: Forget-me-not.
Territorial bird: Willow ptarmigan.
Territorial song: "Alaska's Flag."
Origin of name: Corruption of native word meaning "great country."
1939 population: 72,524.
1950 population: 128,643.
1953 estimated population: 156,000.
1939–50 population change: +77.4%.
Area: 586,400 sq. mi. (incl. Aleutians).
Geographic center (including islands): 95 mi. south of Fort Gibbon.
Largest cities (1950 Census): Anchorage (11,254); Juneau (5,956); Fairbanks (5,771); Ketchikan (5,305); Seward (2,114).

Alaska, the biggest of U. S. possessions (including the Aleutian Islands) was called "Seward's Folly" in 1867, when that Secretary of State arranged for its purchase from Russia for $7,200,000. Since then Alaska has returned approximately $3,500,000,000 worth of products to the U. S.

Canned salmon is Alaska's principal product. It mines gold, supplies all domestically mined U. S. tin and also turns out platinum, coal, antimony, silver, mercury, lead, tungsten, gypsum, limestone and marble. The Pribilof Islands, in the Bering Sea, are world famous as the breeding ground of the Alaska fur seal, which is under careful government control. Beaver, muskrat, otter, mink and other furs also abound. Alaska's first pulp mill, constructed at a cost of $54 million, began operation in 1954.

Mt. McKinley, in the south central part, is 20,300 feet high, the tallest peak in North America. With its wild interior, still partly unexplored, this territory is a hunter's paradise. With only one person for every four square miles, Alaska is by far the most thinly

settled of U. S. lands. Sitka was its capital until 1912.

Alaska has magnificent glaciers and active volcanoes. Winter temperatures in the interior have been known to register 60° below zero. However, summer temperatures in the same area have been recorded at 99° above zero; and large parts of the territory, especially in the southeast, enjoy mild climate in both summer and winter.

Alaska's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's elected delegate to the U. S. House of Representatives has floor privileges but no vote. Legislation is pending in Congress for the admission of Alaska as a state.

The Aleutians include the following island groups (and major islands): Fox Islands (Unimak, Akutan, Unalaska, Umnak); Islands of the Four Mountains (Chuginadak, Kagamil, Carlisle, Herbert); Andreanof Islands (Atka, Tanaga, Adak, Kanaga); Rat Islands (Kiska, Amchitka, Semisopochnoi, Rat); Near Islands (Agattu, Attu). In June 1942, the Japanese occupied Attu and Kiska. However, Attu was retaken by the U. S. in May 1943; Kiska was evacuated by the Japanese in Aug. 1943 after extensive shelling and bombing of the island.

Vitus Bering, a Dane working for the Russians, and Alexei Chirikov discovered Alaska and the Aleutians in 1741.

HAWAII

Capital: Honolulu (on Oahu).
Governor: Samuel Wilder King (to Feb. 1957 *).
Organized as territory: 1900.
Motto: *Ua Mau Ke Ea O Ka Aina I Ka Pono* (The life of the land is preserved by righteousness).
Territorial flower: Hibiscus.
Territorial song: "Hawaii Ponoi" (unofficial).
Nickname: Paradise of the Pacific.
1940 population: 423,300.
1950 population: 499,794.
1940–50 population change: +18.1%.
Area: 6,454 sq. mi. (incl. outlying islands).
Counties: 4.
Largest cities (1950 Census): Honolulu (248,034); Hilo (27,198); Wahiawa (8,369); Kailua-Lanikai (7,740); Wailuku (7,424).

* Or until a successor is appointed.

Hawaii, 2,100 miles west-southwest of San Francisco, is a 390-mile chain of islets and 8 main islands—Hawaii, Kahoolawe, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau. Kure (Ocean) Island, an uninhabited islet in the Leeward Islands, and Palmyra, in the Line Islands, are administratively part of Hawaii.

Hawaii's temperature is mild and the soil is fertile for tropical fruits and vegetables. Cane sugar and pineapple are its chief products, approximately 75% of the world's canned pineapple being produced in the islands. Hawaii also grows coffee, rice, cotton, bananas, nuts and potatoes. Some livestock and poultry are raised. The tourist business is Hawaii's fourth largest source of income. Approximately 85% of the island's population, although racially heterogeneous, is native to the U. S.

Hawaii's highest peak, Mauna Kea, rises to 13,784 feet and is, in a sense, the world's highest mountain since it springs from an ocean floor 18,000 feet below sea level. Kilauea, on Hawaii, is one of the world's most active volcanoes. The islands have no snakes and their only native mammal is a small bat of which there are many species.

Hawaii's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's delegate to the U. S. House of Representatives has floor privileges but no vote. Legislation is pending in Congress for the admission of Hawaii as a state.

Hawaii was discovered in 1778 by Captain James Cook, an Englishman, who named it the Sandwich Islands. It was ruled by native monarchs until 1893, thereafter as a republic until 1898, when it ceded itself to the U. S.

COMMONWEALTH OF PUERTO RICO

Capital: San Juan.
Governor: Luis Muñoz Marín (to Jan. 1957).
Song: "La Borinqueña."
1940 population: 1,869,255.
1950 population: 2,210,703.
1940–50 population change: +18.3%.
1954 estimated population: 2,229,500.
Area: 3,423 sq. mi.
Largest cities (1950 Census): San Juan (357,205*); Ponce (99,492); Mayagüez (58,944); Caguas (33,759); Arecibo (28,659).

* Includes Río Piedras (132,438), which was annexed in 1951.

Puerto Rico is an island about 95 mi. long and 36 mi. wide at the northeastern end of the Caribbean Sea. It is a self-governing Commonwealth freely and voluntarily associated with the U. S. Under its Constitution, a Governor and a Legislative Assembly are elected by direct vote for a 4-year period. The judiciary is vested in a Supreme Court and lower courts established by law. The people elect a Resident Commissioner to the U. S. House of Representatives, where he has a voice but no vote. The island was formerly an unincorporated territory of the U. S. after being ceded by Spain as a result of the Spanish-American War.

The Commonwealth is one of the most densely populated areas of the world, with about 650 inhabitants per square mile. However, it has one of the highest standards of living. Featuring Puerto Rican economic

development is Operation Bootstrap. This industrialization program has established over 350 new factories and has greatly increased agricultural production, transportation and communications facilities, electric power, housing, etc. Life expectancy was expanded from 46 to 63 years during 1940–50. School enrollment has been doubled.

Columbus discovered the island on his second voyage to America in 1493. Ponce de Léon settled it for Spain by 1508, and became its first governor in 1510.

NON SELF-GOVERNING U. S. TERRITORIES

AMERICAN SAMOA

Capital: Pago Pago (on Tutuila Island).
Governor: Richard Barrett Lowe.
1940 population: 12,908.
1950 population: 18,937.
Area: 75.3 sq. mi.

American Samoa, a group of 5 volcanic islands and 2 coral atolls located some 2,400 miles south of Hawaii in the South Pacific Ocean, is administered by the Interior Dept. The largest island is Tutuila.

By the Treaty of Berlin signed Dec. 2, 1899, and ratified Feb. 16, 1900, the U. S. was internationally acknowledged to have rights extending over all the islands of the Samoa group east of longitude 171° west of Greenwich. On April 17, 1900, the Chiefs of Tutuila and Aunu'u ceded possession of those islands to the U. S. In 1904, the Chiefs of the Manu'a Islands did likewise. Swains Island, some 200 miles north of Samoa, was included as part of the territory by Act of Congress Mar. 4, 1925; and on Feb. 20, 1929, Congress formally accepted sovereignty over the entire group and placed the responsibility for administration in the hands of the President. From 1900 to 1951, by Presidential direction, the Department of the Navy governed the territory.

The principal products are copra, mats, handicrafts, and canned fish.

BAKER, HOWLAND AND JARVIS

These Pacific islands were not to play a role in the extraterritorial plans of the U. S. until May 13, 1936, when the U. S. perfected its claim. President F. D. Roosevelt, at that time, placed them under the control of and jurisdiction by the Secretary of the Interior for administration purposes.

Baker Island is a saucer-shaped atoll with an area of approximately one square mile and an elevation of 20 feet. It is about 1,650 miles from Hawaii.

Howland Island, 36 miles to the northeast, is approximately one and a half miles long and half a mile wide and rises to an elevation of 18 feet.

Jarvis Island is several hundred miles to the east and is approximately two miles long by one and an eighth miles wide.

CANAL ZONE

Headquarters: Balboa Heights, C. Z.; 21 West St., New York City.
Governor-President: Brig. Gen. John S. Seybold.
1940 population: 51,827.
1950 population: 52,822.
Area: 648.01 sq. mi.

The Canal Zone is a 50-mile strip between the Atlantic and Pacific Oceans which was granted to the U. S. by the Republic of Panamá by treaty in 1903 (ratified Feb. 26, 1904). It extends roughly 5 miles on either side of the center line of the Panama Canal.

The 1903 treaty provided for the payment of $10,000,000 by the U. S. to Panamá upon ratification of the treaty and $250,000 in gold annually, beginning 9 years after ratification. The annual payments were increased to $430,000 after the U. S. went off the gold standard.

The history of the Canal goes back to 1534, when King Charles V of Spain ordered a survey made. Construction of the waterway was formally inaugurated in Jan. 1880 by the French Canal Co. under a concession granted by New Granada (Colombia) 2 years earlier. The canal rights and properties of the second French Canal Co. were bought by the U. S. for $40,000,000, the transfer being made May 4, 1904, in Panama City. The construction was completed 10 years later.

The Canal is 40.27 miles from shore line to shore line and 50.72 miles from deep water in the Caribbean to deep water in the Pacific. The Panama Railroad, completed in 1855, is owned by the Panama Canal Co. It roughly parallels the Canal channel, running 47.64 miles from Colón to Panama City.

The Panama Canal Locks, which provide a water bridge between the two oceans, are Gatún Locks on the Atlantic side and Pedro Miguel and Miraflores Locks on the Pacific side. They lift or lower ships 85 feet between sea level and Gatún Lake level in 3 steps on each side of the Isthmus. Each of the twin chambers in every flight of locks has a usable length of 1,000 feet, and width of 110 feet, and is about 70 feet deep.

The Canal Zone is, in effect, a government reservation, and in general no private enterprise is permitted except that relating directly to the operation of the waterway. The Governor, who is appointed by the U. S. President, administers the Canal Zone Government, which is charged with the civil government, including health, sanitation and protection of the Zone. The Governor is also ex officio President of the Panama Canal Company, which is a corporate agency of the U. S. charged with the operation of the Canal and related business activities.

All ships afloat, with the exception of the commercial liners of the Queen Mary class and U. S. Aircraft carriers of the Roosevelt class, can transit the Panama Canal. Prior to the beginning of World War II, work was started on the construction of a third set of locks, which were to be much larger than existing installations. This work was suspended soon after the war started and has not been resumed.

CANTON AND ENDERBURY

Canton and Enderbury islands, the largest of the Phoenix group, are jointly owned and supervised by the U. S. and Great Britain after an agreement signed on Apr. 6, 1939. Canton is triangular in shape and the largest of the eight islands of this group. It lies approximately 1,600 miles southwest of Hawaii in the Pacific and was discovered at the turn of the eighteenth century by U. S. whalers. It was surveyed by Commander R. W. Meade who named it after a whaler ship. It had, in 1953, a population of 316, including Europeans. Enderbury is rectangular in shape and is 2.7 miles long by one mile wide. It is unpopulated and lies about 32 miles southeast of Canton.

GUAM

Capital: Agaña.
Governor: Ford Quint Elvidge.
1940 population: 22,290.
1950 population: 59,498.
Area: 206 sq. mi.

Guam, the largest of the Mariana Islands, is independent of the trusteeship assigned to the U. S. in 1947. It was acquired by the U. S. from Spain in 1898 (occupied 1899) and was placed under the Navy Department.

In World War II, Guam was seized by the Japanese on Dec. 11, 1941; but on July 27, 1944, it was once more under the U. S.

On Aug. 1, 1950, President Truman signed a bill which granted U. S. citizenship to the people of Guam and which established limited self-government. The civilian governor operates under supervision of the Department of the Interior.

The principal crops are maize, sweet potatoes, taro and cassava. Cattle, pigs and chickens are raised.

Added stimulus to Guam's economy was given by the development in 1950 of a commercial port at Apra Harbor under the administration of the Guam government.

JOHNSTON ISLAND

This island was originally discovered by Captain Charles James Johnston of *H.M.S. Cornwallis* on Dec. 14, 1807. On July 27, 1858, it was claimed by Hawaii and became a possession of the U. S. The island is about 600 miles southwest of Hawaii and about 1½ miles long by half a mile wide.

KINGMAN REEF

This reef was discovered by Captain W. E. Kingman in Nov. 1853 and is the smallest land of U. S. sovereignty. It is 150 feet long by 120 feet wide at high tide. At low tide, two other islets of this atoll appear. It is approximately 1,000 miles south of Hawaii.

KURE (OCEAN) ISLAND. See HAWAII

MIDWAY

Midway, lying about 1,200 miles westnorthwest of Hawaii, was discovered by Captain N. C. Brooks of the Hawaiian bark *Gambia* on July 5, 1859, in the name o the U. S. It was formally declared a U. S possession in 1867, and in 1903 Theodor Roosevelt made it a naval reservation.

Sand and Eastern Islands, with 850 acre and 328 acres respectively, are its larges individual islands. In 1935 Midway becam a stopover for commercial transpacifi flights. Commercial activities ceased in 195

The total group comprises an area of 2 square miles and has no native population The Navy Department maintains an installa tion on Midway.

PALMYRA. See HAWAII

VIRGIN ISLANDS OF THE U. S.

Capital: Charlotte Amalie (on St. Thomas)
Governor: Walter A. Gordon.
1940 population: 24,889 (St. Croix, 12,902; S Thomas, 11,265; St. John, 722).
1950 population: 26,665.
1940–50 population change: +7.1%.
Area: 133 sq. mi. (St. Croix, 82; St. Thomas 32; St. John, 19).

The Virgin Islands, consisting of 9 mai islands and some 75 islets, were discovere by Columbus in 1493. Since 1666, Englan has held 6 of the main islands; the other (St. Croix, St. Thomas and St. John), a well as about 50 of the islets, were even tually acquired by Denmark, which name them the Danish West Indies. In 1917, thes islands were purchased by the U. S. fron Denmark for $25 million.

Congress granted U. S. citizenship to Vir gin Islanders in 1927; and, in 1931, admin istration was transferred from the Navy t the Department of the Interior. Universa suffrage was given in 1936 to all person who could read and write the English lan guage. The Governor is appointed by th President of the U. S.

About 70% of the population is Negro, an there is limited farming, fishing and cattl raising. Vegetables, citrus fruits and coco nuts are raised, and the chief items of ex port are rum and bay rum.

WAKE ISLAND

Wake Island, about halfway between Mid way and Guam, is actually the three islet of Wilkes, Peale and Wake. They were dis covered by the British in 1796 and annexe by the U. S. in 1898. The entire area com prises four square miles. In 1938, Pan Amer ican Airways established a seaplane base an it has been used as a commercial base sinc then. On Dec. 8, 1941, it was attacked b the Japanese, who finally took possession o Dec. 23. It was surrendered by the Japanes on Sept. 4, 1945. On Oct. 15, 1950, it was th scene of a conference between President Tru man and General MacArthur.

The Civil Aeronautics Administratio maintains a station on the island. There i no native population.

U. S. Trusteeships

In 1885, Germany assumed a protectorate over the Marshall Islands; and, in 1899, she urchased the Northern Mariana and Caroline Islands from Spain. These islands were ccupied by the Japanese in 1914 and were mandated to Japan by the League of Nations 1919. On Apr. 2, 1947, the U. N. Security Council adopted and set up the Strategic Trust erritory of the Pacific Islands and assigned the Northern Marianas, Carolines and Marshalls the U. S. The measure was approved by the President, with the agreement of Congress, July 18, 1947. Administration was transferred from the Navy to the Department of the nterior on July 1, 1951. However, administration of Saipan and Tinian was transferred back the Navy on Jan. 1, 1953. On July 17 of the same year, administration of the remaining lands of the Northern Marianas, with the exception of Rota, was also transferred back to ne Navy.

The entire group comprises more than 2,000 islands, but the total land area is only 687 q. mi., many of the islands being only tiny coral reefs. The Micronesians are the main ultural group, the inhabitants of the Northern Marianas being most advanced.

MARIANA ISLANDS

The Mariana Islands, east of the Philippines and south of Japan, include the lands of Guam, Rota, Saipan, Tinian, agan, Guguan, Agrihan and Aguijan. Guam, ne largest, is independent of the trusteeship, having been acquired by the U. S. from pain in 1898. (For information on Guam, ee page 274.)

Chief crops are copra and fresh fruits and egetables.

CAROLINE ISLANDS

The Caroline Islands, east of the Philippines and south of the Marianas, include ne Yap, Truk and Palau groups and the lands of Ponape and Kusaie, as well as lany coral atolls.

The islands are composed chiefly of volcanic rock, and their peaks rise 2,000 to 3,000 feet above sea level. Chief exports of the islands are copra, trochus and handicrafts.

MARSHALL ISLANDS

The Marshall Islands, east of the Carolines, are divided into two chains: the western or Ralik group, including the atolls Jaluit, Kwajalein, Wotho, Bikini and Eniwetok; and the eastern or Ratak group, including the atolls Mili, Majuro, Maloelap, Wotje and Likiep.

The islands are of the coral-reef type and rise only a few feet above sea level. The chief crop is coconuts; exports include copra, tortoise shell, mother-of-pearl, etc.

Bikini and Eniwetok have been the scene of several atom-bomb tests.

Islands Under Provisional U. S. Administration

In accordance with the Japanese peace reaty signed Sept. 8, 1951, the U. S. may ropose that the U. N. assign to it, as a rusteeship, the following former Japanese erritory: the Ryukyu Islands south of 29° lat. (largest: Okinawa); the Bonin Islands argest: Chichi Jima); the Volcano Islands (including Iwo Jima); Rosario Island; Parece Vela; and Marcus Island. It was also agreed in the treaty that, until such trusteeship is actually granted, the U. S. will administer the islands. As of Sept. 1955, no action had been taken by the U. S. toward bringing about this trusteeship.

THE 50 LARGEST CITIES OF THE CONTINENTAL U. S.

ince we planned the INFORMATION PLEASE ALMANAC as a book of national scope and interest, e avoided emphasis on and identification with a single city or state, as has been characteristic f all almanacs heretofore. To obtain accurate and authoritative information we have gone to the city officials. We appreciate their co-operation.

AKRON, OHIO

ncorporated as city: 1865.
ayor-Manager: Leo Berg (to Dec. 1955).
940 population & (rank): 244,791 (38).
950 population & (rank): 274,605 (39).
940–50 population change: +12.2%.
950 land area: 53.7 sq. mi.
ltitude: 1,081 ft.
ocation: In NE part of state, on Little Cuyahoga River.
ounty: Seat of Summit Co.
hurches: 260 of all denominations.
ity-owned parks: 73 (4,400 ac.).
elephones (1954): 123,994 (residential).
elevision sets (1953): 123,994.*
adio stations (1955): AM, 4; FM, 1.
Television stations (1955): 1.
Assessed valuation (1954): $676,000,000.
City tax rate (1954): $29.86 per $1,000.
Bonded debt (1954): $11,189,000.
Revenue (1954): $19,649,702.
Expenditure (1954): $19,649,702.

* In viewing area.

ATLANTA, GA.

Incorporated as city: 1847.
Mayor: William B. Hartsfield (to Jan. 1958).
1940 population & (rank): 302,288 (28).
1950 population & (rank): 331,314 (33).
1954 estimated population: 467,300.

1940–50 population change: +9.6%.
1952 area: 126.997 sq. mi.
Altitude: Highest, 1,050 ft.; lowest, 940.
Location: In NW central part of state, near Chattahoochee River.
Counties: In Fulton and De Kalb Cos.; seat of Fulton Co.
Churches: For whites, more than 352; for Negroes, more than 270.
City-owned parks and parkways: 146 (2,350 ac.).
Telephones (April, 1954): 245,000.
Families with radios (1952): 202,650.
Television sets (1952): 158,000.
Radio stations: AM, 10; FM, 5.
Television stations: 4.
Assessed valuation (1954): $723,000,000.
City tax rate (1954): $25 per $1,000.
Bonded debt (1954): $37,050,008.
Revenue (1954): $34,094,218.*
Expenditure (1954): $33,566,844.

* Does not include $1,538,441 brought forward from 1953.

BALTIMORE, MD.

Incorporated as city: 1797.
Mayor: Thomas D'Alesandro, Jr. (to May 1959).
1940 population & (rank): 859,100 (7).
1950 population & (rank): 949,708 (6).
1940–50 population change: +10.5%.
1940 area: Land, 78.7 sq. mi.; inland water, 6.9.
Altitude: Highest, 490 ft.; lowest, sea level.
Location: On Patapsco River, about 12 mi. from Chesapeake Bay.
County: Independent city.
Churches: Roman Catholic, 72; Jewish, 57; Protestant and other, 482 (150 colored).
City-owned parks: 148 park areas and tracts (6,000 ac.).
Telephone subscribers (April 1, 1954): 220,404.
Radio stations: AM, 8; FM, 3.
Television stations: 3.
Assessed valuation (1955): $2,936,005,029.
City tax rate (1955): $3.05 per $100.
Net bonded debt (Jan. 1, 1955): $230,038,060.
Revenue (1954 budget): $144,808,628.
Expenditure (1954 budget): $137,055,693.

BIRMINGHAM, ALA.

Incorporated as city: 1871.
Mayor: James W. Morgan (to Nov. 1957).
1940 population & (rank): 267,583 (35).
1950 population & (rank): 326,027 (34).
1940–50 population change: +21.8%.
1955 land area: 66.88 sq. mi.
Altitude: Highest, 1,052 ft.; lowest, 565.
Location: In N central part of state.
County: Seat of Jefferson Co.
Churches: Protestant, 491; Roman Catholic, 26; Jewish, 3.
City-owned parks: 66 (1,211 ac.).
Telephones (1955): 150,754.
Television sets (1954): 133,000.
Radio stations: AM, 11; FM, 3.
Television stations: 3.
Assessed valuation (1954): $370,000,000.
City tax rate (1955): $18 per $1,000.
Net bonded debt (Sept. 1, 1954): $18,715,899.
Revenue (1954): $21,446,220.
Expenditure (1954): $21,361,599.

BOSTON, MASS.

Incorporated as city: 1822.
Mayor: John B. Hynes (to Jan. 1956).
1940 population & (rank): 770,816 (9)
1950 population & (rank): 801,444 (10).
1940–50 population change: +4.0%.
1940 area: Land, 46.1 sq. mi.; inland wate 19.8.
Altitude: Highest, 330 ft.; lowest, sea level.
Location: On Massachusetts Bay, at mout of Charles and Mystic Rivers.
County: Seat of Suffolk Co.
Churches: Protestant, 253; Roman Catholi 84; Jewish, 38; others, 74.
City-owned parks & parkways: 3,091.81 ac.
Telephones: 344,663.
Radio sets (Greater Boston Area): 857,549.
Television sets (Greater Boston Area): 792,309.
Radio stations: AM, 9; FM, 8.
Television stations: 3.
Assessed valuation (1954): $1,566,676,000.
City tax rate (1954): $69.80 per $1,000.
Net bonded debt (1954): $63,584,472.
Revenue (1954): $188,222,441.
Expenditure (1954): $176,618,297.

BUFFALO, N. Y.

Incorporated as city: 1832.
Mayor: Steven Pankow (to Jan. 1958).
1940 population & (rank): 575,901 (14).
1950 population & (rank): 580,132 (15).
1940–50 population change: +0.7%.
1940 area: Land, 42.67 sq. mi.; inland wate 10.8.
Altitude: Highest, 680 ft.; lowest, 571.
Location: At east end of Lake Erie, on Niaga River.
County: Seat of Erie Co.
Churches: Protestant, 268; Roman Catholi 82; Jewish, 16; others, 34.
City-owned parks: 10 large (1,137 ac.), 41 mi nor (116 ac.).
Telephones (April 1954): 293,839.
Radio sets: 323,942.
Television sets: 130,258.
Radio stations: AM, 7; FM, 4.
Television stations: 3.
Assessed valuation (1955): $1,027,910,133.
City tax rate (1955): $32.31 per $1,000.
Bonded debt (1955): $46,005,477.
Revenue (1954–55): $61,795,638.
Expenditure (1954–55): $61,795,638.

CHICAGO, ILL.

Incorporated as city: 1837.
Mayor: Richard J. Daley (to Apr. 1959).
1940 population & (rank): 3,396,808 (2).
1950 population & (rank): 3,620,962 (2).
1940–50 population change: +6.6%.
1942 area: Land, 208.3 sq. mi.; inland wate 4.6.
Altitude: Highest, 665 ft.; lowest, 581.
Location: On lower west shore of Lake Mich gan.
County: Seat of Cook Co.
Churches: Protestant, 1,725; Roman Catholi 319; Jewish, 172.
City-owned parks: 300 (8,557 ac.).
Telephones (Mar. 1955): 1,640,042.
Radio sets (June 1, 1954): 2,315,630.

Television sets (July 30, 1955): 1,977,919.
Radio stations: AM, 25; FM, 22.
Television stations: 4.
Assessed valuation (1954): $8,703,599,431.
City tax rate (1954): $3.768 per $100.
Gross bonded debt (1954): $453,123,400.
Revenue (1954): $629,087,972.
Expenditure (1954): $601,531,847.

CINCINNATI, OHIO

Incorporated as city: 1819.
Mayor: Carl W. Rich (to Nov. 1955).
City Manager: C. A. Harrell (Apptd. 1954).
1940 population & (rank): 455,610 (17).
1950 population & (rank): 503,998 (18).
1940–50 population change: +10.6%.
1954 land area: 76.1301 sq. mi.
Altitude: Highest, 960 ft.; lowest, 441.
Location: In SW corner of state on Ohio River.
County: Seat of Hamilton Co.
Churches: 505.
City-owned parks: 82 (3,751.37 ac.).
Telephones (1955): 333,731.*
Homes with radios (1954): 293,700.*
Homes with television (1954): 263,400.*
Radio stations: AM, 7; FM, 2.
Television stations: 3.
Assessed valuation (1955): $1,290,000,000.
City tax rate (1955): $11.08 per $1,000.
Bonded debt (1954): $119,824,306.
Revenue (1954): $47,723,076.
Expenditure (1954): $36,732,035.

* Data for Hamilton County.

CLEVELAND, OHIO

Incorporated as city: 1836.
Mayor: Anthony J. Celebrezze (to Nov. 1955).
1940 population & (rank): 878,336 (6).
1950 population & (rank): 914,808 (7).
1940–50 population change: +4.2%.
1940 area: Land, 73.1 sq. mi.; inland water, 0.
Altitude: Highest, 865 ft.; lowest, 573.
Location: On Lake Erie at mouth of Cuyahoga River.
County: Seat of Cuyahoga Co.
Churches: Protestant, 377; Roman Catholic, 118; Jewish, 36; others, 6.
City-owned parks: 35 (2,420 ac.).
Telephones (Mar. 1955): 696,772.*
Radio sets (1955): 1,102,500.†
Television sets (1955): 1,195,000.‡
Radio stations: AM, 8; FM, 8.
Television stations: 3.
Assessed valuation (1954): $2,365,000,000.
City tax rate (1954): $32.10 per $1,000.
Bonded debt (1955): $177,743,500.
Revenue (1954): $113,659,582.
Expenditure (1954): $92,966,319.

* Metropolitan area. † Greater Cleveland. ‡ In viewing area.

COLUMBUS, OHIO

Incorporated as city: 1834.
Mayor: M. E. Sensenbrenner (to Dec. 1955).
1940 population & (rank): 306,087 (26).
1950 population & (rank): 375,901 (28).
1940–50 population change: +22.8%.
1954 est. population: 408,655.
Altitude: Highest, 900 ft.; lowest, 612.
Location: In central part of state, on Scioto River.
County: Seat of Franklin Co.
Churches: Protestant, 361; Roman Catholic, 33; Jewish, 6.
City-owned parks: 117 (1,528.34 ac.).
Telephones (1955): 253,772.
Homes with radios (1954): 166,000.
Television sets (1954): 153,387.
Radio stations: AM, 5; FM, 3.
Television stations: 3.
Assessed valuation (1955): $781,976,640.
City tax rate (1955): $23.80 per $1,000.
Bonded debt (1954): $51,175,333.
Revenue (1954): $24,064,013.
Expenditure (1954): $17,944,549.

DALLAS, TEX.

Incorporated as city: 1856.
Mayor: R. L. Thornton (to May 1957).
City Manager: Elgin E. Crull (apptd. 1952).
1940 population & (rank): 294,734 (31).
1950 population & (rank): 434,462 (22).
1940–50 population change: +47.4%.
1955 area: Land, 185.6 sq. mi.; inland water, 1.2.
Altitude: Highest, 685 ft.; lowest, 375.
Location: In NE part of state, on Trinity River.
County: Seat of Dallas Co.
Churches: 515.
City-owned parks: 94 (6,256 ac.).
Telephones: 305,162.
Radio sets: 231,800.
Television sets: 200,000.
Radio stations: AM, 8; FM, 3.
Television stations: 2.
Assessed valuation: (1955): $1,004,942,020.
City tax rate (1955): $2.30 per $100.
Net bonded debt (Mar. 1, 1955): $107,003,522.
Revenue (1954–55): $48,172,415.
Expenditure (1954–55): $48,172,415.

DAYTON, OHIO

Incorporated as city: 1805.
Mayor: Henry S. Stout (to Jan. 1959).
City Manager: Herbert W. Starick (apptd. July 1953).
1940 population & (rank): 210,718 (40).
1950 population & (rank): 243,872 (44).
1940–50 population change: +15.7%.
1950 land area: 25.0 sq. mi.
Altitude: Highest, 960 ft.; lowest, 720 ft.
Location: In SW part of state, on Miami River.
County: Seat of Montgomery Co.
Churches: Protestant, 200; Roman Catholic, 29; Jewish, 3.
City-owned parks: 51 (761 ac.).
Telephones (1955): 180,000.
Radio sets (1955): 142,260.*
Television sets (1955): 140,000.
Radio stations (1955): AM, 4; FM, 1.
Television stations (1955): 2.
Assessed valuation (1954): $629,248,620.
City tax rate (1954): $9.20 per $1,000.†
Bonded debt (1954): $26,915,200.
Revenue (1954): $10,494,021 (General Fund).
Expenditure (1954): $10,237,211 (General Fund).

* Dwellings only; metropolitan area. † Dayton also has a ½ of 1% City Income Tax on salaries and net profits of businesses.

DENVER, COLO.

Incorporated as city: 1861.
Mayor: Will B. Nicholson (to July 1959).
1940 population & (rank): 322,412 (24).
1950 population & (rank): 415,786 (24).
1940–50 population change: +29.0%.
1954 area: Land, 69.7 sq. mi.; inland water, 0.8.
Altitude: Highest, 5,470 ft.; lowest, 5,130.
Location: In NE central part of state, on South Platte River.
County: Coextensive with Denver Co.
Churches: Protestant, 292; Roman Catholic, 50; Jewish, 12.
City-owned parks: 65 (798.9 planted ac.).
City-owned mountain parks: 27 (13,447.6 ac.).
Families with telephones (1953): 150,869.
Families with radios: Not available.
Television sets: Not available.
Radio stations: AM, 7; FM, 3.
Television stations: 4
Assessed valuation (1953): $881,779,700.
City tax rate (1954): $42.26 per $1,000.
Bonded debt (1953): $13,055,000.
Revenue (1954): $35,074,418.
Expenditure (1954): $51,025,848.

DETROIT, MICH.

Incorporated as city: 1824.
Mayor: Albert E. Cobo (to Jan. 1958).
1940 population & (rank): 1,623,452 (4).
1950 population & (rank): 1,849,568 (5).
1940–50 population change: +13.9%.
1940 area: Land 137.9 sp. mi.; inland water, 4.1.
Altitude: Highest, 685 ft.; lowest, 574.
Location: In Southeast part of state, on Detroit River.
County: Seat of Wayne Co.
Churches: Protestant, 1,000;* Catholic, 188; Jewish, 38.
City-owned parks: 380 (5,581 ac.).
Telephones: 1,205,000.
Radio sets: 2,347,600.
Television sets: 1,466,000.
Radio stations: AM, 6; FM, 7.
Television stations: 4.
Assessed valuation (1955): $4,753,021,870.
City tax rate (1955): $22.17 per $1,000.
Net bonded debt (June 30, 1954): $310,804,000.
Revenue (1954): $355,345,448.
Expenditure (1954): $350,778,483.

* Metropolitan area. † Excludes school system.

FORT WORTH, TEX.

Incorporated as city: 1873.
Mayor: Dr. F. E. (Jack) Garrison (to Apr. 1957).
City Manager (acting): J. F. Davis (apptd. Feb. 1955).
1940 population & (rank): 177,662 (46).
1950 population & (rank): 278,778 (38).
1940–50 population change: +56.9%.
1950 land area: 93.7 sq. mi.
Altitude: Highest, 740 ft.; lowest, 520 ft.
Location: In NE part of state, on Trinity River.
County: Seat of Tarrant Co.
Churches: Protestant, 432; Roman Catholic, 14; Jewish, 2.
City-owned parks: 48 (4,758.88 ac.).
Telephones (1955): 169,633.
Radio sets (1954): 150,000.
Television sets (1955): 94,034.
Radio stations (1955): AM, 6; FM, 1.
Television stations (1955): 1.
Assessed valuation (1955): $570,000,000.
City tax rate (1955): $1.67 per $100.
Bonded debt (1952–53): $52,060,753.
Revenue (1952–53): $16,204,532.
Expenditure (1952–53): $16,521,457.

HOUSTON, TEX.

Incorporated as city: 1837.
Mayor: Roy Hofheinz (to Jan. 1957).
1940 population & (rank): 384,514 (21).
1950 population & (rank): 596,163, (14).
1940–50 population change: +55.0%.
1950 area: Land, 160 sq. mi.; inland water, 0.
Altitude: Highest, 74 ft.; lowest, sea level.
Location: In SE part of state, near Gulf of Mexico.
County: Seat of Harris Co.
Churches: Over 500.
City-owned parks: 91 (3,372.60 ac.).
Telephones (1955): 382,859.
Radio sets: 302,700.*
Television sets: 251,241.*
Radio stations: AM, 8; FM, 2.
Television stations: 2.
Assessed valuation (1954): $1,362,402,000; (1955 est.): $1,500,000,000.
City tax rate: $1.975 per $100.
Bonded debt (1955): $127,613,148.
Revenue (1954): $32,735,853.
Expenditure (1954): $34,616,690.

* Metropolitan area.

INDIANAPOLIS, IND.

Incorporated as city: 1874.
Mayor: Alex M. Clark (to Dec. 1955).
1940 population & (rank): 386,972 (20).
1950 population & (rank): 427,173 (23).
1940–50 population change: +10.4%.
1954 area: Land, 58.0 sq. mi.; inland water, 0.1.
Altitude: Highest, 816 ft.; lowest, 667.
Location: In central part of state, on West Fork of White River.
County: Seat of Marion County.
Churches: 515.
City-owned parks: 32 (3,519 ac.).
Telephones (May 1955): 257,900.
Radio sets: 135,780 (radio families).
Television sets: 156,800.
Radio stations: AM, 5; FM, 1.
Television stations: 2.
Assessed valuation (1953): $708,893,550.
City tax rate (1954): $5.726 per $100.
Gross debt (Dec. 31, 1954): $43,217,620.
Revenue (1953): $41,460,907.
Expenditure (1953): $38,254,049.

JACKSONVILLE, FLA.

Incorporated as city: 1832.
Mayor: Haydon Burns (to June 1959).
1940 population & (rank): 173,065 (47).
1950 population & (rank): 204,517 (49).

1940–50 population change: +18.2%.
1950 land area: 30.2 sq. mi.
Altitude: Highest, 25 ft.; lowest, 10 ft.
Location: In NE part of state, on St. Johns River near Atlantic Ocean.
County: Seat of Durval Co.
Churches: 300.
City-owned parks: 1,200 ac.
Telephones (1955): 94,000.
Radio stations (1955): AM, 7; FM, 2.
Television stations (1955): 2.
Assessed valuation (1955): $350,581,280.
City tax rate (1955): $13.70 per $1,000.
Bonded debt (1955): $4,508,000.
Revenue (1954): $37,857,205.
Expenditure (1954): $37,857,205.

JERSEY CITY, N. J.

Incorporated as city: 1855.
Mayor: Bernard J. Berry (to Dec. 1957).
1940 population & (rank): 301,173 (30).
1950 population & (rank): 299,017 (37).
1940–50 population change: —0.7%.
1940 area: Land, 14.3 sq. mi.; inland water, 7.2.
Altitude: Highest, 180 ft.; lowest, sea level.
Location: In NE part of state, on Hudson River and Upper New York Bay.
County: Seat of Hudson Co.
Churches: Protestant, 96; Roman Catholic, 39; Jewish, 17; Others, 45.
Telephones: 83,876.
Assessed valuation (1955): $494,378,123.
City tax rate (1955): $84.05 per $1,000.
Bonded debt (Dec. 31, 1954): $40,275,363.*
Revenue (1954): $48,763,743.
Expenditure (1954): $49,157,926.

* Includes bonds and notes authorized and not issued of $3,270,863.

KANSAS CITY, MO.

Incorporated as city: 1853.
Mayor: H. Roe Bartle (to Apr. 1959).
City Manager: L. P. Cunningham (apptd. June 1940).
1940 population & (rank): 399,178 (19).
1950 population & (rank): 456,622 (20).
1940–50 population change: +14.4%.
1950 land area: 80.6 sq. mi.
Altitude: Highest, 1,014 ft.; lowest, 722 ft.
Location: In western part of state, at conjunction of Missouri and Kansas Rivers.
County: Located in Jackson Co.
Churches: Protestant, 264; Roman Catholic, 37; Jewish, 7.
City-owned parks: 52 (2,927 ac.).
Telephones (1955): 241,454.
Television sets (1955): 494,323.
Radio stations (1955): AM, 9; FM, 1.
Television stations (1955): 3.
Assessed valuation (1955): $796,000,000.
City tax rate (1955–56): $15 per $1,000.
Bonded debt (Apr. 30, 1955): $55,783,000.
Revenue (1955): $25,083,589.
Expenditure (1955): $27,241,776.

LONG BEACH, CALIF.

Founded: 1880.
Mayor: George M. Vermillion (to July 1957).
City Manager: Samuel E. Vickers (apptd. 1949).
1940 population & (rank): 164,271 (53).
1950 population & (rank): 250,767 (41).
1940–50 population change: +52.7%.
1950 land area: 34.7 sq. mi.
Altitude: Highest, 47 ft.; lowest, sea level.
Location: On San Pedro Bay, south of Los Angeles.
County: In Los Angeles Co.
Churches: 175.
City-owned parks: 36 (1,627.94 ac.).
Telephones (1955): 144,206.
Radio stations (1955): AM, 3; FM, 1.
Television stations: None.
Assessed valuation (1954–55): $461,637,880.
City tax rate (1954–55): $1.28 per $100.
Bonded debt (June 30, 1954): $11,497,500.
Revenue (1954–55): $55,745,680.
Expenditure (1954–55): $41,871,787.

LOS ANGELES, CALIF.

Incorporated as city: 1850.
Mayor: Norris Poulson (to June 1957).
1940 population & (rank): 1,504,277 (5).
1950 population & (rank): 1,970,358 (4).
1940–50 population change: +31.0%.
1954 area: 453.693 sq. mi.
Altitude: Highest, 5,081 ft.; lowest, sea level.
Location: In SW part of state, on Pacific Ocean.
County: Seat of Los Angeles Co.
Churches: 1,700.
City-owned parks: 110 (9,600 ac.).
Telephones (Jan. 1, 1955): 1,132,573.
Radio sets (Oct. 1954): 1,724,110.*
Television sets (Feb. 1955): 2,058,196.*
Radio stations (Jan. 1, 1954): AM, 25; FM, 14.*
Television stations (1953): 8.
Assessed valuation (1954–55): $3,055,936,214.
City tax rate (1954–55): $1.8279 per $100.
Gross debt (June 30, 1954): $365,953,000.
Revenue (1954–55): $331,355,334.
Expenditure (1954–55): $348,368,553.

* Metropolitan area.

LOUISVILLE, KY.

Incorporated as city: 1828.
Mayor: Andrew Broaddus (to Dec. 1957).
1940 population & (rank): 319,077 (25).
1950 population & (rank): 369,129 (30).
1940–50 population change: +15.7%.
1950 land area: 39.9 sq. mi.
Altitude: Highest, 761 ft.; lowest, 382 ft.
Location: In north central part of state, on Ohio River.
County: Seat of Jefferson Co.
Churches*: Protestant, 474; Roman Catholic, 62; Jewish, 6.
City-owned parks: 7 (2,048 ac.).
Telephones (1955)†: 158,477.
Radio sets (1955): 126,660.
Television sets (1955)†: 157,920.
Radio stations (1955): AM, 7; FM, 0.
Television stations (1955): 2.
Assessed valuation (Jan. 1, 1954): $682,062,878
City tax rate (1955): $1.50 per $100 (city purposes only; exclusive of schools).
Net bonded debt (Apr. 30, 1955): $46,766,423.
Revenue (1955): $15,878,887 (general corporate purposes only).

Expenditure (1955): $15,878,887 (general corporate purposes only).

* Jefferson County. † Metropolitan area.

MEMPHIS, TENN.

Incorporated as city: 1826.
Mayor: Frank T. Tobey (to Jan. 1956).
1940 population & (rank): 292,942 (32).
1950 population & (rank): 396,000 (26).
1940–50 population change: +35.2%.
1950 area: Land, 121.1 sq. mi.; inland water, 11.6.
Altitude: Highest, 320 ft.; lowest, 195.
Location: In SW corner of state, on Mississippi River.
County: Seat of Shelby Co.
Churches: Roman Catholic, 18; Jewish, 7; Protestant & other, 538.
City-owned parks: 48 (1,985 ac.); playgrounds, 45.
Telephones (Apr. 1, 1954): 173,794.
Radio sets (Apr. 1, 1954): 150,126.
Television sets (Apr. 1, 1954): 125,102.
Radio stations: AM, 8; FM, 1.
Television stations: 2.
Assessed valuation (1955): $688,761,752.
City tax rate (1953): $1.80 per $100.
Bonded debt (Dec. 31, 1954): $42,863,179.
Revenue (1954): $16,675,922.
Expenditure (1954): $16,867,636.

MIAMI, FLA.

Incorporated as city: 1896.
Mayor: Abe Aronovitz (to Nov. 1955).
City manager: Gen. E. A. Evans (apptd. Sept. 1, 1952).
1940 population & (rank): 172,172 (48).
1950 population & (rank): 249,276 (42).
1940–50 population change: +44.8%.
1950 area: Land, 34.19 sq. mi.; inland water, 18.45.
Altitude: Average, 10 ft.
Location: In SE part of state, on Biscayne Bay.
County: Seat of Dade Co.
Churches: 235.
City-owned parks: 26.
Telephones: 242,800.
Radio sets: 165,000.
Television sets: 125,000.
Radio stations: AM, 6; FM, 4.
Television stations: 1.
Assessed valuation (1954–55): $634,906,680.
City tax rate (1954–55): $22.76 per $1,000.
Bonded debt (June 30, 1954): $34,930,000.
Revenue (1954–55): $21,789,845.
Expenditure (1954–55): $21,900,388.

MILWAUKEE, WIS.

Incorporated as city: 1846.
Mayor: Frank P. Zeidler (to Apr. 1956).
1940 population & (rank): 587,472 (13).
1950 population & (rank): 637,392 (13).
1940–50 population change: +8.5%.
1954 area: Land, 67 sq. mi.; inland water, 0.
Altitude: 581 ft.
Location: In SE part of state, on Lake Michigan.
County: Seat of Milwaukee Co.
Churches: 435.
County-owned parks: 78 (7,780 ac.).
Telephones (1954): 375,278.
Radio sets (1954): 271,490.*
Television sets (1954): 250,545.*
Radio stations: AM, 7; FM, 2.
Television stations: 3.
Assessed valuation (1954): $1,495,693,680.
City tax rate (1955): $34.36 per $1,000.
Gross debt (Dec. 31, 1954): $41,063,133.
Revenue (1954): $95,419,605.
Expenditure (1955 budget): $98,593,677.

* Milwaukee Metropolitan Area.

MINNEAPOLIS, MINN.

Incorporated as city: 1867.
Mayor: Eric G. Hoyer (to July 1957).
1940 population & (rank): 492,370 (16).
1950 population & (rank): 521,718 (17).
1940–50 population change: +6.0%.
1954 area: Land, 58.79 sq. mi.; inland water, 5.0.
Altitude: Highest, 945 ft.; lowest, 695.
Location: In SE central part of state, on Mississippi River.
County: Seat of Hennepin Co.
Churches: 472.
City-owned parks: 147.
Telephones (1955): 325,000.
Radio sets (1952): 410,000.
Television sets (1955): 180,000.
Radio stations: AM, 10; FM, 3.
Television stations: 5.
Assessed valuation (1953): $341,000,000.
City tax rate (1953): $1.48 per $100.
Net debt (1953): $41,771,000.
Revenue (1953): $61,894,689.
Expenditure (1951): $52,000,000.

NEW ORLEANS, LA.

Incorporated as city: 1805.
Mayor: de Lesseps S. Morrison (to May 1958).
1940 population & (rank): 494,537 (15).
1950 population & (rank): 570,445 (16).
1940–50 population change: +15.3%.
1954 population: 619,000.
1954 area: Land, 199.4 sq. mi.; inland water, 164.1.
Altitude: Highest, 15 ft.; lowest, 4 below sea level.
Location: In SE part of state, between Mississippi River and Lake Pontchartrain.
Parish: Seat of Orleans Parish.
Churches: 625.
City-owned parks: 69 (1,700 ac.).
Telephones (1955): 250,491.
Radio sets (1955): 205,200.
Television sets (1955): 105,000.
Radio stations: AM, 11; FM, 4.
Television stations: 2.
Assessed valuation (1955): $798,762,390.
City tax rate (1955): $2.83 per $100.
Bonded debt (Jan. 1, 1955): $72,973,000.
Revenue (1955 budget): $24,305,325.
Expenditure (1955 budget): $24,305,325.

NEW YORK, N. Y.

Chartered as "Greater New York": 1898.
Mayor: Robert F. Wagner (to Dec. 1957).
Borough Presidents: Bronx, James J. Lyons

Brooklyn, John Cashmore; Manhattan, Hulan E. Jack; Queens, James A. Lundy; Richmond, Albert V. Maniscalco.
1940 population & (rank): 7,454,995 (1).
1950 population & (rank): 7,891,957 (1).
1940–50 population change: +5.9%.
1940 area: Land, 299.0 sq. mi.; inland water, 66.4 sq. mi.
Altitude: Highest, 430 ft.; lowest, sea level.
Counties: Consists of 5 counties: Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island).
Location: SE part of state, at mouth of Hudson River.
Churches: Protestant, 1,418; Jewish, 1,330; Roman Catholic, 525.
City-owned parks: 882 (27,144 ac.).
Telephones: 3,819,784.
Families with radios: 2,258,470.
Television sets: 4,290,000.
Radio stations: AM, 14; FM, 12.
Television stations: 6.
Assessed valuation (1954–55): $20,277,843,482.
City tax rate (1954–55): $3.68 per $100.
Bonded debt (1952): $3,488,594,455.
Revenue (1952): $1,536,515,837.
Expenditure (1952): $1,517,417,222.

NEWARK, N. J.

Incorporated as city: 1836.
Mayor: Leo P. Carlin (to July 1958).
1940 population & (rank): 429,760 (18).
1950 population & (rank): 438,776 (21).
1940–50 population change: +2.1%.
1955 area: Land, 23.57 sq. mi.; inland water, 3.2.
Altitude: Highest, 273.4 ft.; lowest, sea level.
Location: In NE part of state, on Passaic River and Newark Bay.
County: Seat of Essex Co.
Churches: Protestant, 159; Roman Catholic, 41; Jewish, 32; others, 57.
City-owned parks: 38 (34.24 ac.).
County-governed parks in city: 7 (755.72 ac.).
Telephones (1955): 270,000.
Radio sets: Not available.
Radio stations: AM, 4; FM, 3.
Television stations: 1.
Assessed valuation (1955): $718,280,549.
City tax rate (1955): $8.47 per $100.
Net bonded debt (1955): $38,271,332.
Revenue (1954): $75,832,363.
Expenditure (1954): $71,903,467.

NORFOLK, VA.

Incorporated as city: 1845.
Mayor: W. F. Duckworth (to Aug. 1958).
City Manager: H. H. George, 3rd (apptd. Sept. 1952).
1940 population & (rank): 144,332 (60).
1950 population & (rank): 213,513 (48).
1940–50 population change: +47.9%.
1950 land area: 28.2 sq. mi.
Location: In SE part of state, on Elizabeth River.
County: Independent city.
Churches: 310.
Telephones (1955): 99,436.
Radio stations (1955): AM, 3; FM, 1.
Television stations (1955): 1.
Assessed valuation (1955): $282,000,000.
City tax rate (1955): $3 per $100.
Bonded debt (1955): $47,000,000.
Revenue (1955 anticipated): $28,116,221.
Expenditure (1955 budget): $27,651,279.

OAKLAND, CALIF.

Incorporated as city: 1854.
Mayor: Clifford E. Rishell (to June 1957).
City Manager: Wayne E. Thompson (appt. Aug. 1954).
1940 population & (rank): 302,163 (29).
1950 population & (rank): 384,575 (27).
1940–50 population change: +27.3%.
1950 land area: 53.0 sq. mi.
Altitude: Highest, 1,700 ft.; lowest, sea level.
Location: In west part of state, on east side of San Francisco Bay.
County: Seat of Alameda Co.
Churches: Protestant, 149; Roman Catholic, 21; Jewish, 3; others, 46.
City-owned parks: 943.6 ac.
Telephones (Jan. 1955): 220,701.
Radio sets (est. 1955): 340,000.
Television sets (est. 1955): 135,000.
Radio stations (1955): AM, 3; FM, 1.
Television stations (1955): 3 (Bay area).
Assessed valuation (1955): $435,000,000.
City tax rate (1954–55): $2.76 per $100.
Bonded debt (1954–55): $15,652,000.
Revenue (1953–54): $27,245,086.
Expenditure (1953–54): $29,476,420.

OKLAHOMA CITY, OKLA.

Incorporated as city: 1890.
Mayor: Allen Street (to Apr. 1959).
City Manager: William Gill, Jr.
1940 population & (rank): 204,424 (42).
1950 population & (rank): 243,504 (45).
1940–50 population change: +19.1%.
1955 area: Land, 66.75 sq. mi.; inland water, 0.
Altitude: Highest, 1,276 ft.; lowest, 1,070.
Location: In central part of state, on North Canadian River.
County: Seat of Oklahoma Co.
Churches: Protestant, about 280; Roman Catholic, 13; Jewish, 2; others, 5.
City-owned parks: 82 (9.924 ac.).
Telephones (1955): 154,987.
Television sets: Not available.
Radio stations: AM, 8; FM, 1.
Television stations: 3.
Assessed valuation (1954–55): $296,684,781.
City tax rate (1950): $12.782 per $1,000.
Bonded debt (1950): $18,918,000.
Revenue (1950): $8,784,230.64.
Expenditure (1950): $7,935,758.79.

OMAHA, NEBR.

Incorporated as city: 1857.
Mayor: John Rosenblatt (to May 1957).
1940 population & (rank): 223,844 (39).
1950 population & (rank): 251,117 (40).
1940–50 population change: +12.2%.
1950 land area: 40.7 sq. mi.
Altitude: Highest, 1,270 ft.

Location: In eastern part of state, on Missouri River.
County: Seat of Douglas Co.
Churches: Protestant, 130; Roman Catholic, 40; Jewish, 7.
City-owned parks: 3,000 ac.
Telephones (1954): 134,743.
Radio sets: Not available.
Television sets: Not available.
Radio stations (1955): AM, 5; FM, 0.
Television stations (1955): 2.
Assessed valuation (1955): $421,780,116.
City tax rate (1955): $54.54 per $1,000.
Bonded debt (1955): $15,860,500.
Revenue (1954): $17,653,900.
Expenditure (1954): $18,127,700.

PHILADELPHIA, PA.

First charter as city: 1701.
Mayor: Joseph Sill Clark, Jr. (to Jan. 1956).
1940 population & (rank): 1,931,334 (3).
1950 population & (rank): 2,071,605 (3).
1940–50 population change: +7.3%.
1940 area: Land, 127.2 sq. mi.; inland water, 7.8.
Altitude: Highest, 440 ft.; lowest, sea level.
Location: In SE part of state, at junction of Schuylkill and Delaware Rivers.
County: Seat of Philadelphia Co.
Churches: Roman Catholic, 148; Jewish, 136; Protestant and other, 923.
City-owned parks: 35 (7,499.19 ac.).
Telephones (1953): 862,897.
Television sets (1953): 632,153.
Radio stations: AM, 10; FM, 7.
Television stations: 3.
Assessed valuation (1955): $3,662,618,350.
City tax rate (1955): $3.025 per $100.
Net bonded debt (Jan. 1, 1955): $497,689,247.
Revenue (1954): $187,124,702.
Expenditure (1954): $188,337,699.

PITTSBURGH, PA.

Incorporated as city: 1816.
Mayor: David L. Lawrence (to Jan. 1958).
1940 population & (rank): 671,659 (10).
1950 population & (rank): 676,806 (12).
1940–50 population change: +0.8%.
1951 area: Land, 55.23 sq. mi.; inland water, 3.0.
Altitude: Highest, 1,240 ft.; lowest, 715.
Location: In SW part of state, at junction of Allegheny and Monongahela Rivers to form Ohio River.
County: Seat of Allegheny Co.
Churches: Protestant, 778; Roman Catholic, 86; Jewish, 10.
City-owned parks: 23; 9 parklets (1,970 ac.).
Telephones (1955): 293,731.
Radio sets (1955): 198,890.
Television sets (1955): 461,982.*
Radio stations: AM, 7; FM, 2.
Television stations: 2.
Assessed valuation (1954): Land, $411,613,575; buildings, $701,224,268.
City tax rate (1955): Land, $32 per $1,000; buildings, $16 per $1,000.
Bonded debt (1954): $49,421,300.
Revenue (1954): $47,735,249.
Expenditure (1954): $47,703,861.

*Allegheny County.

PORTLAND, OREG.

Incorporated as city: 1851.
Mayor: Fred L. Peterson (to Jan. 1957).
1940 population & (rank): 305,394 (27).
1950 population & (rank): 373,628 (29).
1940–50 population change: +22.3%.
1954 area: Land, 69.813 sq. mi.
Altitude: Highest, 1,073 ft.; lowest, sea level.
Location: In NW part of state, on Willamette River.
County: Seat of Multnomah Co.
Churches: Protestant, 400; Roman Catholic, 37; Jewish, 10; Buddhist, 2.
City-owned parks: 111 (5,550 ac.).
Telephones (Mar. 1, 1953): 211,468.
Radio stations: AM, 8; FM, 5.
Television stations: 3.
Assessed valuation (1954–55): $655,520,200.
City tax rate (1954–55): $18.60 per $1,000.
Bonded debt (June 30, 1954): $24,787,146.
Revenue (1953–54): $25,726,535.
Expenditure (1953–54): $25,789,838.

PROVIDENCE, R. I.

Incorporated as city: 1832.
Mayor: Walter H. Reynolds (to Jan. 1957).
1940 population & (rank): 253,504 (37).
1950 population & (rank): 248,674 (43).
1940–50 population change: —1.9%.
1940 land area: 17.9 sq. mi.
Altitude: Highest, 253 ft.; lowest, sea level.
Location: In northern part of state, at head of Providence River (north arm of Narragansett Bay).
County: Seat of Providence Co.
Churches: Protestant, 94; Roman Catholic, 31.
City-owned parks: 33 (815 ac.).
Radio stations: AM, 7; FM, 6.
Television stations: 2.
City tax rate (1953): $31 per $1,000.
Net bonded debt (Sept. 30, 1954): $42,763,991.
Revenue (1954–55 est. budget): $30,476,837.
Expenditure (1954–55 est. budget): $30,448,534.

RICHMOND, VA.

Incorporated as city: 1782.
Mayor: Thomas P. Bryan (to July 1956).
City Manager: Horace H. Edwards (Apptd. 1954).
1940 population & (rank): 193,042 (45).
1950 population & (rank): 230,310 (46).
1940–50 population change: +19.3%.
1951 area: 39.89 sq. mi.
Altitude: Highest, 312 ft.; lowest, 0.
Location: In east central part of state, on James River.
County: Administratively independent.
Churches: Protestant, 201; Roman Catholic 13; Jewish, 5; others, 74.
City-owned parks*: 62 (1,108 ac.).
Radio stations: AM, 6; FM, 4.
Television stations: 1.
Assessed valuation (1954): $502,282,398.
City tax rate (1955): Real, $1.90 per $100; personal, $2.20 per $100; machinery, $1 per $100.
Net bonded debt (June 30, 1955): $40,960,343.†
Revenue (1953–54): $30,008,577.
Expenditure (1953–54): $29,723,669.

*Including 37 playgrounds and 11 athletic fields.
†Estimate.

ROCHESTER, N. Y.

Incorporated as city: 1834.
Mayor: Samuel B. Dicker (to Dec. 1956).
City Manager: Robert P. Aex (apptd. 1954).
1940 population & (rank): 324,975 (23).
1950 population & (rank): 332,488 (32).
1940–50 population change: +2.3%.
1953 area: Land, 34.8 sq. mi.; inland water, 0.5.
Altitude: Highest, 655 ft.; lowest, 246 ft.
Location: In west part of state, on Genesee River.
County: Seat of Monroe Co.
Churches: Protestant, 128; Roman Catholic, 38; Jewish, 19; others, 22.
City-owned parks: 23 (2,000 ac.).
Telephones (1953): 185,000.
Radio sets (1953): 335,000.
Television sets (1953): 210,000.
Radio stations: AM, 6; FM, 2.
Television stations: 2.
Assessed valuation (1954): $629,535,471.
City tax rate (1954): $31.20 per $1,000.
Bonded debt (Dec. 31, 1953): $9,362,000.
Revenue (1953): $40,929,874.
Expenditure (1953): $38,444,125.

ST. LOUIS, MO.

Incorporated as city: 1822.
Mayor: Raymond R. Tucker (to Apr. 1957).
1940 population & (rank): 816,048 (8).
1950 population & (rank): 856,796 (8).
1940–50 population change: +5.0%.
1953 area: Land, 61.0 sq. mi.; inland water, 4.0.
Altitude: Highest, 605 ft.; lowest, 410 ft.
Location: On Mississippi River, 20 miles south of its conjunction with the Missouri River.
County: Independent city, not in county.
Churches: 1,043.
City-owned parks: 79 (2,846.61 ac.).
Telephones (1955): 619,000.
Radio sets (1954): 594,300.
Television sets (1953): 441,360.
Radio stations (1953): AM, 10; FM, 1.
Television stations (1953): 4.
Assessed valuation (1954): $1,420,074,000.
City tax rate (1955): $3.09 per $100.
Bonded debt (1955): $30,000,000.
Revenue (1954): $63,619,656.
Expenditure (1954): $61,530,292.

ST. PAUL, MINN.

Chartered as city: 1853.
Mayor: Joseph E. Dillon (June 1956).
1940 population & (rank): 287,736 (33).
1950 population & (rank): 311,349 (35).
1940–50 population change: +8.2%.
1955 land area: 55.44 sq. mi.
Altitude: Highest, 1,045 ft.; lowest, 683.
Location: In SE central part of state, on Mississippi River.
County: Seat of Ramsey Co.
Churches: Protestant, 250; Catholic, 54; Jewish, 4.
City-owned parks: 5 (2,300 ac.).
Telephones (1954): 182,000.
Radio stations: 4.
Television stations: 3.
Assessed valuation (1953): $206,000,000.
City tax rate (1954): $96.63 per $1,000.
Bonded debt (1954): Gross, $29,216,000; net, $16,981,058.
Revenue (1954): $55,386,270.
Expenditure (1954): $54,916,377.

SAN ANTONIO, TEX.

Incorporated as city: 1809.
Mayor: J. Edwin Kuykendall (to May 1957).
City Manager: Dr. George W. Rice (apptd. Aug. 1954).
1940 population & (rank): 253,854 (36).
1950 population & (rank): 408,442 (25).
1940–50 population change: +60.9%.
1950 land area: 69.5 sq. mi.
Altitude: 728 ft.
Location: In south central part of state, on San Antonio River.
County: Seat of Bexar Co.
City-owned parks: Over 2,000 ac.
Radio stations (1955): AM, 9; FM, 4.
Television stations (1955): 2.
Assessed valuation (1954): $669,428,110.
City tax rate (1954): $1.97 per $100.
Bonded debt (1954): $16,493,000.
Revenue (1954): $16,103,095.
Expenditure (1954): $16,103,095.

SAN DIEGO, CALIF.

Incorporated as city: 1850; again in 1872.
Mayor: Charles C. Dail (to May 1959).
City Manager: O. W. Campbell (apptd. Jan. 1950).
1940 population & (rank): 203,341 (43).
1950 population & (rank): 334,387 (31).
1940–50 population change: +64.4%.
1950 land area: 99.4 sq. mi.
Altitude: Highest, 822 ft.; lowest, sea level.
Location: In south part of state, on San Diego Bay.
County: Seat of San Diego.
Churches: Roman Catholic, 25; Jewish, 3; Protestant & other, 159.
City-owned parks: 63 (2,507.11 ac.).
Telephones: 172,503.
Radio sets: 300,000.
Television sets: 160,000.
Radio stations: AM, 9; FM, 2.
Television stations: 2.
Assessed valuation (1954–55): $507,691,010.
City tax rate (1954–55): $1.76 per $100.
Bonded debt (1953–54): $33,002,200.
Revenue (1953–54): $27,302,183.
Expenditure (1953–54): $32,286,707.

SAN FRANCISCO, CALIF.

Incorporated as city: 1850.
Mayor: Elmer E. Robinson (to Jan. 1956).
1940 population & (rank): 634,536 (12).
1950 population & (rank): 775,357 (11).
1940–50 population change: +22.2%.
1955 est. population: 805,000.
1950 area: Land, 44.6 sq. mi.; inland water, 48.5.
Altitude: Highest, 900 ft.; lowest, sea level.

Location: Between Pacific Ocean and San Francisco Bay.
County: Coextensive with San Francisco Co.
Churches: 422.
City-owned parks: 51.
Telephones (1955): 477,667 (including Presidio).
Homes with radios (1954): 269,100.
Homes with television (1954): 229,376.
Radio stations: AM, 8; FM, 5.
Television stations: 6.
Assessed valuation (1954–55): Land, $368,547,795; improvements, $634,445,990; tangible personal property, $291,972,467.
Assessed valuation of solvent credits: $725,632,886.
City tax rate (1954): $6.85 per $100.
Bonded debt (July 1, 1955): General city bonds, $92,311,000; public service enterprise bonds, $84,551,000.
General city revenue (1953–54): $137,151,212.
General city expenditure (1953–54): $135,730,407.

SEATTLE, WASH.

Incorporated as city: 1869.
Mayor: Allan Pomeroy (to June 1956).
1940 population & (rank): 368,302 (22).
1950 population & (rank): 467,591 (19).
1954 est. population: 552,500.
1940–50 population change: +27.0%.
1954 area: Land, 88.19 sq. mi.; inland water, 12.2.
Altitude: Highest, 540 ft.; lowest, sea level.
Location: In west central part of state, on Puget Sound.
County: Seat of King Co.
Churches: Protestant, 267; Roman Catholic, 30; Jewish, 6.
City-owned parks: 183 (3,136 ac.).
Telephones (1955): 304,120.
Homes with radios (1955): 252,080.
Television sets (1955): 422,220.
Radio stations: AM, 12; FM, 3.
Television stations: 3.
Assessed valuation (1955): $579,711,312.
City tax rate (1955): $52.50 per $1,000.
Bonded debt* (Dec. 31, 1954): $15,717,000.
Revenue* (1954): $29,523,180.
Expenditure* (1954): $29,819,018.

*General; not including city-owned light, water, transit systems.

SYRACUSE, N. Y.

Incorporated as city: 1848.
Mayor: Donald H. Mead (to Dec. 1957).
1940 population & (rank): 205,967 (41).
1950 population & (rank): 220,583 (47).
1940–50 population change: +7.1%.
1950 land area: 25.77 sq. mi.
Altitude: Highest, 840 ft.; lowest, 363.
Location: Central part of state, near Oneida Lake.
County: Seat of Onondaga Co.
Churches: Protestant, 76; Roman Catholic, 23; Jewish, 8; others, 8.
City-owned parks: 173 (2,152.37 ac.).
Telephones in Syracuse metropolitan area: 142,705.
Radio sets, est. (1954): 195,000.
Radio stations: AM, 5; FM, 2.
Television stations: 2.
Assessed valuation (1955): Real estate, $376,034,697; special franchise, $18,446,995.
City tax rate: $12.2293 per $1,000.
School tax rate: $17.382 per $1,000.
Bonded debt (Dec. 31, 1954): $3,839,875 (includes $2,919,875 self-liquidating water bonds).
Revenue (1954): $27,103,579.
Expenditure (1954): $25,469,748.

TOLEDO, OHIO

Incorporated as city: 1837.
Mayor: Ollie Czelusta (to Dec. 1955).
City Manager: John J. McCarthy (apptd. June 1954).
1940 population & (rank): 282,340 (34).
1950 population & (rank): 303,616.
1940–50 population change: +7.5%.
1950 land area: 38.3 sq. mi.
Altitude: 587 ft.
Location: In NW part of state, on Maumee River at Lake Erie.
County: Seat of Lucas Co.
Churches: Protestant, 258; Roman Catholic, 37; Jewish, 5.
City-owned parks & playgrounds: 52 (2,197 ac.).
Telephones (1954): 171,332.
Radio sets (1954): 95,420.
Television sets (1954): 107,100.
Radio stations: AM, 4; FM, 3.
Television stations: 1.
Assessed valuation (1954): $760,082,338.
City tax rate (1955): $21.65 per $1,000.
Bonded debt: All offset by trust fund.
Revenue (1955): $29,206,858.
Expenditure (1955): $25,035,180.

WASHINGTON, D. C.

See District of Columbia, p. 254.

WORCESTER, MASS.

Incorporated as city: 1780.
Mayor: James D. O'Brien (to Jan. 1956).
City Manager: Francis J. McGrath (apptd. Apr. 1951).
1940 population & (rank): 193,694 (44).
1950 population & (rank): 203,486 (50).
1940–50 population change: +5.1%.
1954 estimated population: 208,700.
1950 land area: 37.0 sq. mi.
Altitude: Highest, 1,051 ft.; lowest, 359 ft.
Location: In central part of state.
County: Seat of Worcester Co.
Churches: Protestant, 85; Roman Catholic, 30; Jewish, 10.
City-owned parks: 52 (1,319 ac.).
Telephones (1955): 82,782.
Radio sets (1955): 137,453.
Television sets (1955): 54,981.
Radio stations (1955): AM, 4; FM, 1.
Television stations (1955): 1.
Assessed valuation (1955): $340,000,000.
City tax rate (1955): $56 per $1,000.
Bonded debt (Apr. 1, 1955): $26,831,000.
Revenue (1955): $31,074,356.
Expenditure (1955): $31,074,355.

Tabulated Data on State Governments

Source: Questionnaires to the states.

State	GOVERNOR		LEGISLATURE[1]					HIGHEST COURT[2]		
	Term	Annual salary	Membership U[3]	Membership L[4]	Term U[3]	Term L[4]	Salaries of members[5]	Members	Term	Annual salary
Alabama	4[6]	$12,000	35	106	4	4	$ 20 per diem	7	6	$12,000
Arizona	2	15,000	28	80	2	2	8 per diem[19]	5	6	12,500
Arkansas	2	10,000	35	100	4	2	1,200 per biennium	7	8	9,000
California	4	25,000	40	80	4	2	6,000 per annum	7	12	21,000[25]
Colorado	2	17,500	35	65	4	2	100 per month	7	10	12,000
Connecticut	4	15,000	36	279	2	2	600 per term	5	8	15,000[10]
Delaware	4	12,000	17	35	4	2	1,077 per annum	3	12	17,000[27]
Florida	4[6]	15,000	38	95	4	2	10 per diem	7	6	13,500
Georgia	4[6]	12,000[26]	54	205	2	2	15 per diem	7	6	8,000
Idaho	4[6]	10,000	44	59	2	2	10 per diem	5	6	8,500
Illinois	4	25,000	51	153	4	2	10,000 per biennium	7	9	20,000
Indiana	4[6]	15,000	50	100	4	2	1,200 per annum	5	6	13,500
Iowa	2	12,000	50	108	4	2	2,000 per session	9	6	10,000
Kansas	2	15,000	40	125	4	2	5 per diem	7	6	10,000
Kentucky	4[6]	15,000	38	100	4	2	25 per diem	7	8	12,000
Louisiana	4[6]	18,000	39	101	4	4	30 per diem	7	14	18,000
Maine	2	10,000	33	151	2	2	1,000 per session	6	7	11,000[29]
Maryland	4[8]	15,000	29	123	4	4	1,800 per annum	5	15	19,000[15]
Massachusetts	2	20,000	40	240	2	2	4,500 per annum	7	Life	18,500
Michigan	2	22,500	34	110	2	2	4,000 per annum	8	8	18,500
Minnesota	2	15,000	67	131	4	2	4,800 per session[24]	7	6	15,000[30]
Mississippi	4[6]	15,000	49	140	4	4	2,000 per session	9	8	11,000
Missouri	4[6]	10,000	34	157	4	2	1,500 per annum	7	12	17,500
Montana	4	15,000	56	94	4	2	11 per diem	5	6	9,000
Nebraska	2	11,000	43[11]		2[11]		872 per annum	7	6	12,000
Nevada	4	15,000	17	47	4	2	15 per diem	3	6	10,000
New Hampshire	2	12,000	24	(13)	2	2	200 per biennium	5	(14)	12,000
New Jersey	4[8]	30,000	21	60	4	2	5,000 per annum	7	(34)	24,000[12]
New Mexico	2[8]	15,000	32	55	4	2	20 per diem	5	8	15,000
New York	4	50,000	58	150	2	2	7,500 per annum[35]	7	14	32,500
North Carolina	4[6]	15,000	50	120	2	2	15 per diem[31]	7	8	16,000
North Dakota	2	9,000	49	113	4	2	5 per diem	5	10	10,000
Ohio	2	20,000	33	135	2	2	3,200 per annum	7	6	16,000
Oklahoma	4[6]	15,000	44	(16)	4	2	15 per diem[17]	9	6	12,500
Oregon	4[8]	15,000	30	60	4	2	600 per annum	7	6	13,500
Pennsylvania	4[6]	25,000	50	210	4	2	3,000 per session	7	21	25,000[9]
Rhode Island	2	15,000	44	100	2	2	5 per diem[19]	5	(20)	17,000[18]
South Carolina	4[6]	15,000	46	124	4	2	1,000 per session	5	10	10,000
South Dakota	2[8]	12,000	35	75	2	2	1,050 per biennium	5	6	10,000
Tennessee	4[6]	12,000	33	99	2	2	10 per diem[22]	5	8	12,000
Texas	2	25,000	31	150	4	2	25 per diem[23]	(21)	6	15,000
Utah	4	10,000	25	64	4	2	500 per annum[7]	5	10	10,000
Vermont	2	11,000	30	246	2	2	1,250 per session[32]	5	2	10,000[32]
Virginia	4[6]	17,500	40	100	4	2	1,080 per session	7	12	13,500[36]
Washington	4	15,000	46	99	4	2	1,200 per annum	9	6	12,000
West Virginia	4[6]	17,500	32	100	4	2	1,500 per annum	5	12	17,500
Wisconsin	2	14,000	33	100	4	2	200 per month	7	10	12,000[28]
Wyoming	4	12,000	27	56	4	2	12 per diem	3	8	11,000

[1] Known as **General Assembly** in Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, **Legislative Assembly** in Montana, North Dakota, Oregon; **General Court** in Massachusetts, New Hampshire; **Legislature** in other states. Meets **annually** in Arizona, California, Maryland, Massachusetts, Michigan, New Jersey, New York, Rhode Island, South Carolina; **biennially** in other states. [2] Known as **Court of Appeals** in Kentucky, Maryland, New York; **Supreme Court of Appeals** in Virginia, West Virginia; **Supreme Judicial Court** in Maine, Massachusetts; **Supreme Court of Errors** in Connecticut; **Supreme Court** in other states. [3] Upper house; known as **Senate** in all states. [4] Lower house; known as **Assembly** in California, Nevada, New York, Wisconsin, **House of Delegates** in Maryland, Virginia, West Virginia; **House of Representatives** in other states. [5] Does not include additional payment for expenses, mileage, etc. [6] Cannot succeed himself [7] Plus $5 per diem during sessions. [8] May not serve a third consecutive term. [9] Chief Justice, $25,500. [10] Chief Justice, $15,500. [11] Unicameral legislature. [12] Chief Justice, $25,000. [13] Varies from 350 to 400. [14] Until 70 years old. [15] Chief Justice, $20,000. [16] Varies from 119 to 123. [17] During session; $100 per month when not in session. [18] Chief Justice, $18,000. [19] For 60 days only. [20] "Term of good behavior." [21] 9 members in Supreme Court (highest in civil cases); 3 members in Court of Criminal Appeals. [22] For 75 days only. [23] For first 120 days only. [24] House; Senate $9,600. [25] Chief Justice, $21,500. [26] Governor declined raise offered by 1953 Legislature. [27] Chief Justice, $17,500. [28] Chief Justice, $12,500. [29] Chief Justice, $12,000. [30] Chief Justice, $16,000. [31] For 90 only. [32] Plus $5 each day over 125 days. [33] Chief Justice, $10,500. [34] During good behavior; retired at 70. [35] For those elected Nov. 1954. [36] Chief Justice, $14,000.

Tabulated Data on City Governments

Source: Questionnaires to the cities.

City	MAYOR Term, years	MAYOR Salary[1]	City manager's salary[1,2]	COUNCIL OR COMMISSION Name	Members	Term, years	Salary[1]
Akron, Ohio	2	$12,000	.....	Council	13	2	$3,000
Atlanta, Ga.	4	16,000	.....	Bd. of Aldermen	17	4	250[17]
Baltimore, Md.	4	15,000	.....	Council	21	4	4,200[18]
Birmingham, Ala.	4	10,000	.....	Commission	3	4	9,000
Boston, Mass.	4	20,000	.....	Council	9	2	5,000
Buffalo, N. Y.	4	20,000	.....	Council	15	2[4]	6,000[20]
Chicago, Ill.	4	25,000	.....	Council	50	4	5,000[14]
Cincinnati, Ohio	2	10,445	$30,000	Council	9	2	8,000
Cleveland, Ohio	2	25,000	.....	Council	33	2	5,000
Columbus, Ohio	4	11,500	.....	Council	7	4	1,000
Dallas, Tex.	2	20[5]	20,000	Council	9	2	20[8]
Dayton, Ohio	4	1,800	21,000	Commission	5[12]	4	1,200
Denver, Colo.	4	14,000	.....	Council	9	4	3,000[10]
Detroit, Mich.	4	25,000	.....	Council	9	4	12,000
Ft. Worth, Tex.	2	10[22]	16,000	Council	9	2	10[22]
Houston, Tex.	2	20,000	.....	Council	8	2	300[7]
Indianapolis, Ind.	4	13,200	.....	Council	9	4	1,200[16]
Jacksonville, Fla.	4	9,600	.....	([23])	([23])	4	([23])
Jersey City, N. J.	4	12,000	.....	Commission	5[15]	4	7,500
Kansas City, Mo.	4	15,000	([25])	Council	8	4	4,800
Long Beach, Calif.	3	250[3]	22,500	Council	9	3	200[3]
Los Angeles, Calif.	4	18,000	.....	Council	15	4	7,200
Louisville, Ky.	4	12,000	.....	Bd. of Aldermen	12	2	2,400
Memphis, Tenn.	4	15,500	.....	Commission	5	4	7,200[21]
Miami, Fla.	2	5,000	25,000	Commission	5	4	5,000
Milwaukee, Wis.	4	16,475	.....	Council	28	4	5,662
Minneapolis, Minn.	2	10,750	.....	Council	13	2	5,000
New Orleans, La.	4	17,500	.....	Council	7	4	7,500
New York, N. Y.	4	40,000	.....	Council	25	4	7,000
Newark, N. J.	4	25,000	.....	Council	9	4	6,000
Norfolk, Va.	4	1,800	20,000	Council	7	4	1,200
Oakland, Calif.	4	7,500	20,000	Council	9	4	120[3]
Oklahoma City, Okla.	4	1,000	15,000	Council	8	4	10[5]
Omaha, Nebr.	3	5,000	.....	Council	7[12]	3	4,500
Philadelphia, Pa.	4	25,000	.....	Council	17	4	9,000[9]
Pittsburgh, Pa.	4	20,000	.....	Council	9	4	10,000
Portland, Oreg.	4	11,880	.....	Commission	4	4	10,080
Providence, R. I.	2	15,000	.....	Council	26	2	1,500
Richmond, Va.	2	1,800	22,000	Council	9[12]	2	1,200
Rochester, N. Y.	2	3,000	15,000	Council	9	4	2,000
St. Louis, Mo.	4	10,000	.....	Bd. of Aldermen	29	4	3,000[11]
St. Paul, Minn.	2	7,500	.....	Council	7[12]	2	6,204
San Antonio, Tex.	2	3,000[15]	16,000	Council	9	2	1,040
San Diego, Calif.	4	5,000	19,584	Council	6	4	20[5]
San Francisco, Calif.	4	22,400	.....	Council	11	4	2,400
Seattle, Wash.	4	12,000	.....	Council	9	4	7,200
Syracuse, N. Y.	4	15,000	.....	Council	10	2[18]	2,500[19]
Toledo, Ohio	2	7,000	16,660	Council	9[24]	2	3,600
Worcester, Mass.	2	5,000	19,200	Council	9	2	4,000

[1] Annual, unless otherwise indicated. [2] City Manager's term is indefinite and at will of Council. [3] Per month. [4] For 9 District Councilmen; 4 years for 5 Councilmen-at-large. [5] Per Council meeting. [6] For 3 members; 2 years for 2 members. [7] Per month part-time. [8] Per council meeting; not over $1,040 per year. [9] President receives $10,000. [10] President receives $3,600. [11] President receives $5,000. [12] Including mayor. [13] President receives $6,500. [14] Chairman of Finance Committee receives $3,500 additional. [15] Plus Council pay. [16] President and Chairman of Finance Comm. receive $1,800. [17] Per month; President receives $300. [18] For 5 District Councilmen; 4 years for 4 Councilmen-at-large and President. [19] President receives $3,500. [20] President receives $12,000. [21] Vice-Mayor, who is Commissioner of Fire and Police, has salary of $8,400. [22] Per week. [23] City has both Council and Commission. Council members, 9; salary, $1,500. Commission: members, 5; salary, $6,000. [24] Including Mayor and Vice-Mayor; latter receives $4,800. [25] Salary was not indicated on questionnaire.

Motor Vehicle Laws as of 1955

Source: American Automobile Association.

State	Speed limit[1]	Date new license plates can be used	Driving license Required	Driving license Minimum age	Gasoline tax	Per cent sales tax	Period of stay[2]	Safety responsibility law	Certificate of title required
Alabama	60 pf AF	Oct. 1	yes	16	$.07	1	Reciprocal	yes	no
Arizona	AK	Dec. 1	yes	18	.05	2	([4])	yes	yes
Arkansas	60 pf AK	Jan. 1	yes	16	.065	2	30 days	yes	yes
California	55 pf A	Jan. 3	yes	16	.05	3	([13])	yes	yes
Colorado	60 pf A	Jan. 1	yes	16	.06	2	Reciprocal	yes	yes
Connecticut	45 pf AJK	Feb. 15	yes	16	.04	3[6]	6 months	yes	no
Delaware	50 C	([7])	yes	16	.05	...	Reciprocal	yes	yes
D. C.	25 K	Mar. 1	yes	16	.06	2[9]	Reciprocal	yes	yes
Florida	60 pf D	Jan. 1	yes	16	.07	...	Reciprocal	yes	yes
Georgia	60 F	Jan. 1	yes	16	.06	3	30 days	yes	no
Idaho	60 pf AI	Dec. 1	yes	16	.06	...	Reciprocal	yes	yes
Illinois	60 pf A	Dec. 1	yes	16	.05	2	Reciprocal	yes	yes
Indiana	65 pf AK[18]	Jan. 3	yes	16	.04	...	60 days	yes	yes
Iowa	A	Dec. 1	yes	16	.04	2	Reciprocal	yes	yes
Kansas	A	Jan. 1	yes	16	.04	2	([13])	yes	yes
Kentucky	60 F	Dec. 29	yes	16	.07	3[8]	Reciprocal	yes	([8])
Louisiana	60 pf A	Dec. 1	yes	15	.07	2	Reciprocal	yes	yes
Maine	45 pf A	Dec. 25	yes	15	.06	2	Reciprocal	yes	no
Maryland	50 pf AE	Mar. 1	yes	16	.06	2	90 days	yes	yes
Massachusetts	40 pf A	Jan. 1	yes	16	.05	([9])	Reciprocal[10]	([11])	no
Michigan	A	Dec. 1	yes	16	.045	3	90 days	yes	yes
Minnesota	60 pf D	Nov. 1	yes	15	.05	...	Reciprocal	yes	no
Mississippi	60	Nov. 1	yes	17	.07	2	([13])	yes	no
Missouri	25 pf A	On issue	yes	16	.03	2	Reciprocal	yes	yes
Montana	AIK[5]	Jan. 1	yes	15	.07	...	30 days[12,14]	yes	yes
Nebraska	60 FK	Jan. 1	yes	15½	.05	...	([15])	yes	yes
Nevada	A	Dec. 1	yes	16	.06	...	No limit	yes	yes
New Hampshire	50 pf AK	Mar. 1	yes	16	.05	...	Reciprocal	yes	no
New Jersey	50 K	Mar. 1	yes	17	.04	...	Reciprocal	yes[19]	yes
New Mexico	60 pf I	Dec. 15	yes	14	.06	2	([20])	yes	yes
New York	50 K[21]	Jan. 1	yes	18	.04	...	Reciprocal	yes	no
North Carolina	55	Dec. 1	yes	16	.07	3[16]	Reciprocal	yes	yes
North Dakota	65 I	Nov. 1	yes	16	.06	2	Reciprocal	yes	yes
Ohio	50 pf	Mar. 1	yes	16	.05	3	Reciprocal	yes	yes
Oklahoma	65 I	Dec. 11	yes	16	.055	2	60 days[17]	yes	yes
Oregon	55 pf A	On issue	yes	16	.06	...	Reciprocal	yes	yes
Pennsylvania	50	Mar. 15	yes	16	.03	1	Reciprocal	yes	yes
Rhode Island	50 pf H	Mar. 1	yes	16	.04	2	Reciprocal	yes	no
South Carolina	55 pf	Sept. 13	yes	14	.07	3	90 days	yes	no
South Dakota	60 pf AF	Jan. 1	yes	15	.05	2[8]	60 days	yes	yes
Tennessee	65 I	Mar. 1	yes	16	.07	2	30 days	yes	yes
Texas	60 pf AI	Feb. 1	yes	16	.04	1.1	Reciprocal	yes	yes
Utah	60 pf F	Dec. 15	yes	16	.05	2	Reciprocal	yes	yes
Vermont	50[22]	Mar. 1	yes	16	.05	...	Reciprocal	yes	no
Virginia	55[23]	Mar. 15	yes	15	.06	...	6 months	yes	yes
Washington	50 K	Jan. 1	yes	16	.065	3	Reciprocal	yes	yes
West Virginia	55	June 20	yes	16	.06	2	Rec. 3 mo.	yes	yes
Wisconsin	65 I	On issue	yes	16	.06	...	Reciprocal	yes	yes
Wyoming	60 pf	Dec. 1	yes	15	.05	2	90 days	yes	yes

[1] A—reasonable and proper; B—lower speed at night and on old highways; C—55 mph on 4-lane highways; D—50 mph pf at night; E—55 mph on dual-lane highways; F—50 mph at night; G—60 mph where marked; H—45 mph at night; I—55 mph at night; J—parkways to 55 mph where marked; K—unless otherwise marked; pf—prima facie limit. [2] Applies to nonresidents. The term "reciprocal" means that the state will extend to a nonresident the identical privileges granted by his home state to nonresident motorists. In some states, visitors must register within a specified time. In most states, persons who intend to reside permanently must buy new plates and secure new driving license at once, or within a limited time. Acquisition of employment or placing children in public school is often considered intention to reside permanently. [3] Registry tax on first registration in state. [4] Visitor's permit required after 10 days. [5] Daytime; 55 mph at night. [6] Use tax on new cars, first registration of used cars. [7] Three months before current registration expires. [8] Bill of sale must be filed. [9] Excise tax. [10] Public liability insurance required after 30 days. [11] State has compulsory insurance. [12] Visitors must register immediately. [13] Until home-state license plates expire. [14] Extension granted. [15] Nebraska operator's license required in 30 days. [16] $15 maximum. [17] Visitors must register within 15 days. [18] For automobiles; busses 55 mph; large trucks 45. [19] Called 1952 "Security-Responsibility Law." [20] As of July 1, 1953, nonresident car must bear valid registration plates of place of residence of owner. [21] 1953 law makes it traffic offense to drive unreasonably slow. [22] Unless otherwise posted; trucks and busses 45 mph. [23] Passenger vehicles; trucks 45 mph.

Road Mileages Between U. S. Cities

Copyright, General Drafting Co., Inc.

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala.	....	1,205	930	680	740	655	1,315
Boston, Mass.	1,205	....	460	990	650	1,850	2,000
Buffalo, N. Y.	930	460	....	530	190	1,400	1,550
Chicago, Ill.	680	990	530	....	340	960	1,020
Cleveland, Ohio	740	650	190	340	....	1,210	1,360
Dallas, Tex.	655	1,850	1,400	960	1,210	....	780
Denver, Colo.	1,315	2,000	1,550	1,020	1,360	780	....
Detroit, Mich.	755	720	260	280	170	1,190	1,315
El Paso, Tex.	1,290	2,415	1,970	1,530	1,780	615	700
Houston, Tex.	675	1,895	1,505	1,100	1,330	245	1,035
Indianapolis, Ind.	510	930	500	190	305	910	1,070
Kansas City, Mo.	715	1,415	985	510	790	510	260
Los Angeles, Calif.	2,085	3,085	2,640	2,120	2,415	1,425	1,170
Louisville, Ky.	395	970	540	305	350	865	1,145
Memphis, Tenn.	255	1,355	925	545	730	480	1,085
Miami, Fla.	780	1,565	1,485	1,400	1,335	1,370	2,135
Minneapolis, Minn.	1,065	1,230	770	440	765	995	845
New Orleans, La.	360	1,570	1,290	945	1,075	510	1,290
New York, N. Y.	985	215	395	845	500	1,625	1,795
Omaha, Nebr.	925	1,460	1,015	480	825	665	540
Philadelphia, Pa.	895	300	380	770	430	1,545	1,715
Phoenix, Ariz.	1,710	2,700	2,255	1,785	2,110	1,040	840
Pittsburgh, Pa.	765	590	225	470	125	1,260	1,430
St. Louis, Mo.	495	1,160	730	295	535	665	875
Salt Lake City, Utah	1,820	2,425	1,975	1,410	1,785	1,265	515
San Francisco, Calif.	2,425	3,190	2,740	2,195	2,550	1,785	1,270
Seattle, Wash.	2,705	2,950	2,480	2,120	2,485	2,185	1,385
Washington, D. C.	755	435	380	705	365	1,400	1,645

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	755	1,290	675	510	715	2,085	395
Boston, Mass.	720	2,415	1,895	930	1,415	3,085	970
Buffalo, N. Y.	260	1,970	1,505	500	985	2,640	540
Chicago, Ill.	280	1,530	1,100	190	510	2,120	305
Cleveland, Ohio	170	1,780	1,330	305	790	2,415	350
Dallas, Tex.	1,190	615	245	910	510	1,425	865
Denver, Colo.	1,315	700	1,035	1,070	620	1,170	1,145
Detroit, Mich.	....	1,755	1,300	275	740	2,400	360
El Paso, Tex.	1,755	....	760	1,480	1,010	805	1,495
Houston, Tex.	1,300	760	....	1,020	765	1,545	980
Indianapolis, Ind.	275	1,480	1,020	....	485	2,150	115
Kansas City, Mo.	740	1,010	765	485	....	1,610	520
Los Angeles, Calif.	2,400	805	1,545	2,145	1,610	....	2,175
Louisville, Ky.	360	1,495	980	115	520	2,175	....
Memphis, Tenn.	715	1,105	575	450	475	1,835	380
Miami, Fla.	1,380	2,005	1,220	1,530	2,820	1,080	1,030
Minneapolis, Minn.	525	1,420	1,255	615	475	2,010	730
New Orleans, La.	1,115	1,115	365	840	875	1,920	740
New York, N. Y.	650	2,205	1,655	720	1,205	2,875	755
Omaha, Nebr.	745	1,095	910	590	210	1,690	705
Philadelphia, Pa.	575	2,125	1,565	645	1,130	2,795	680
Phoenix, Ariz.	2,040	420	1,160	1,770	1,280	385	1,795
Pittsburgh, Pa.	285	1,840	1,375	360	840	2,510	395
St. Louis, Mo.	515	1,230	805	230	250	1,895	270
Salt Lake City, Utah	1,710	875	1,450	1,560	1,135	740	1,660
San Francisco, Calif.	2,475	1,210	1,950	2,325	1,890	405	2,430
Seattle, Wash.	2,230	1,795	2,365	2,325	1,925	1,180	2,465
Washington, D. C.	525	2,045	1,430	565	1,050	2,725	600

Road Mileages Between U. S. Cities

Copyright, General Drafting Co., Inc.

Cities	Memphis	Miami	Minneapolis	New Orleans	New York	Omaha	Philadelphia
Birmingham, Ala.	255	780	1,065	360	985	925	895
Boston, Mass.	1,355	1,565	1,230	1,570	215	1,460	300
Buffalo, N. Y.	925	1,485	770	1,290	395	1,015	380
Chicago, Ill.	545	1,400	440	945	845	480	770
Cleveland, Ohio	730	1,335	765	1,075	500	825	430
Dallas, Tex.	480	1,370	995	510	1,625	665	1,545
Denver, Colo.	1,085	2,135	845	1,290	1,795	540	1,715
Detroit, Mich.	715	1,380	525	1,115	650	745	575
El Paso, Tex.	1,105	2,005	1,420	1,115	2,205	1,095	2,125
Houston, Tex.	575	1,220	1,255	365	1,655	910	1,565
Indianapolis, Ind.	450	1,220	615	840	720	590	645
Kansas City, Mo.	475	1,530	475	875	1,205	210	1,130
Los Angeles, Calif.	1,835	2,820	2,010	1,920	2,875	1,690	2,795
Louisville, Ky.	380	1,080	730	740	755	705	680
Memphis, Tenn.	....	1,030	865	400	1,130	685	1,040
Miami, Fla.	1,030	....	1,820	885	1,340	1,735	1,250
Minneapolis, Minn.	865	1,820	....	1,265	1,270	355	1,195
New Orleans, La.	400	885	1,265	....	1,340	1,085	1,250
New York, N. Y.	1,130	1,340	1,270	1,340	....	1,290	90
Omaha, Nebr.	685	1,735	355	1,085	1,290	....	1,210
Philadelphia, Pa.	1,040	1,250	1,195	1,250	90	1,210	....
Phoenix, Ariz.	1,500	2,410	1,680	1,535	2,500	1,355	2,410
Pittsburgh, Pa.	775	1,240	895	1,125	370	915	300
St. Louis, Mo.	305	1,265	560	710	960	460	880
Salt Lake City, Utah	1,600	2,615	1,285	1,775	2,255	950	2,175
San Francisco, Calif.	2,175	3,160	2,040	2,295	3,020	1,715	2,940
Seattle, Wash.	2,400	3,425	1,680	2,695	2,985	1,680	2,905
Washington, D. C.	905	1,115	1,130	1,115	230	1,145	140

Cities	Phoenix	Pittsburgh	St. Louis	Salt Lake City	San Francisco	Seattle	Washington
Birmingham, Ala.	1,710	765	495	1,820	2,425	2,705	755
Boston, Mass.	2,700	590	1,160	2,425	3,190	2,950	435
Buffalo, N. Y.	2,255	225	730	1,975	2,740	2,480	380
Chicago, Ill.	1,785	470	295	1,410	2,195	2,120	705
Cleveland, Ohio	2,110	125	535	1,785	2,550	2,485	365
Dallas, Tex.	1,040	1,260	665	1,265	1,785	2,185	1,400
Denver, Colo.	840	1,430	875	515	1,270	1,385	1,645
Detroit, Mich.	2,040	285	515	1,710	2,475	2,230	525
El Paso, Tex.	420	1,840	1,230	875	1,210	1,795	2,045
Houston, Tex.	1,160	1,375	805	1,450	1,950	2,365	1,430
Indianapolis, Ind.	1,770	360	230	1,560	2,325	2,325	565
Kansas City, Mo.	1,280	840	250	1,135	1,890	1,925	1,050
Los Angeles, Calif.	385	2,510	1,895	740	405	1,180	2,725
Louisville, Ky.	1,795	395	270	1,660	2,430	2,465	600
Memphis, Tenn.	1,500	775	305	1,600	2,175	2,400	905
Miami, Fla.	2,410	1,240	1,265	2,615	3,160	3,425	1,115
Minneapolis, Minn.	1,680	895	560	1,285	2,040	1,680	1,130
New Orleans, La.	1,535	1,125	710	1,775	2,295	2,695	1,115
New York, N. Y.	2,500	370	960	2,255	3,020	2,985	230
Omaha, Nebr.	1,355	915	460	950	1,715	1,680	1,145
Philadelphia, Pa.	2,410	300	880	2,175	2,940	2,905	140
Phoenix, Ariz.	....	2,125	1,535	725	790	1,595	2,340
Pittsburgh, Pa.	2,125	....	585	1,880	2,645	2,610	235
St. Louis, Mo.	1,535	585	....	1,385	2,140	2,175	805
Salt Lake City, Utah	725	1,880	1,385	....	755	895	2,110
San Francisco, Calif.	790	2,645	2,140	755	....	890	2,875
Seattle, Wash.	1,595	2,610	2,175	895	890	....	2,845
Washington, D. C.	2,340	235	805	2,110	2,875	2,845	....

Air Distances Between U. S. Cities

Source: U. S. Coast and Geodetic Survey.

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala.	....	1,052	776	578	618	581	1,095
Boston, Mass.	1,052	....	400	851	551	1,551	1,769
Buffalo, N. Y.	776	400	....	454	173	1,198	1,370
Chicago, Ill.	578	851	454	....	308	803	920
Cleveland, Ohio	618	551	173	308	....	1,025	1,227
Dallas, Tex.	581	1,551	1,198	803	1,025	....	663
Denver, Colo.	1,095	1,769	1,370	920	1,227	663	....
Detroit, Mich.	641	613	216	238	90	999	1,156
El Paso, Tex.	1,152	2,072	1,692	1,252	1,525	572	557
Houston, Tex.	567	1,605	1,286	960	1,114	225	879
Indianapolis, Ind.	433	807	435	165	263	763	1,000
Kansas City, Mo.	579	1,251	861	414	700	451	558
Los Angeles, Calif.	1,802	2,596	2,198	1,745	2,049	1,240	831
Louisville, Ky.	331	826	483	269	311	726	1,038
Memphis, Tenn.	217	1,137	803	482	630	420	879
Miami, Fla.	665	1,255	1,181	1,188	1,087	1,111	1,726
Minneapolis, Minn.	862	1,123	731	355	630	862	700
New Orleans, La.	312	1,359	1,086	833	924	443	1,082
New York, N. Y.	864	188	292	713	405	1,374	1,631
Omaha, Nebr.	732	1,282	883	432	730	586	488
Philadelphia, Pa.	783	271	279	666	360	1,299	1,579
Phoenix, Ariz.	1,456	2,300	1,906	1,453	1,749	887	586
Pittsburgh, Pa.	608	483	178	410	115	1,070	1,320
St. Louis, Mo.	400	1,038	662	262	492	547	796
Salt Lake City, Utah	1,466	2,099	1,699	1,260	1,568	999	371
San Francisco, Calif.	2,013	2,699	2,300	1,858	2,166	1,483	949
Seattle, Wash.	2,082	2,493	2,117	1,737	2,026	1,681	1,021
Washington, D. C.	661	393	292	597	306	1,185	1,494

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	641	1,152	567	433	579	1,802	331
Boston, Mass.	613	2,072	1,605	807	1,251	2,596	826
Buffalo, N. Y.	216	1,692	1,286	435	861	2,198	483
Chicago, Ill.	238	1,252	960	165	414	1,745	269
Cleveland, Ohio	90	1,525	1,114	263	700	2,049	311
Dallas, Tex.	999	572	225	763	451	1,240	726
Denver, Colo.	1,156	557	879	1,000	558	831	1,038
Detroit, Mich.	....	1,479	1,105	240	645	1,983	316
El Paso, Tex.	1,479	....	676	1,264	839	701	1,254
Houston, Tex.	1,105	676	....	865	644	1,374	803
Indianapolis, Ind.	240	1,264	865	....	453	1,809	107
Kansas City, Mo.	645	839	644	453	....	1,356	480
Los Angeles, Calif.	1,983	701	1,374	1,809	1,356	....	1,829
Louisville, Ky.	316	1,254	803	107	480	1,829	....
Memphis, Tenn.	623	976	484	384	369	1,603	320
Miami, Fla.	1,152	1,643	968	1,024	1,241	2,339	919
Minneapolis, Minn.	543	1,157	1,056	511	413	1,524	605
New Orleans, La.	939	983	318	712	680	1,673	623
New York, N. Y.	482	1,905	1,420	646	1,097	2,481	652
Omaha, Nebr.	669	878	794	525	166	1,315	580
Philadelphia, Pa.	443	1,836	1,341	585	1,038	2,394	582
Phoenix, Ariz.	1,690	346	1,017	1,499	1,049	357	1,508
Pittsburgh, Pa.	205	1,590	1,137	330	781	2,136	344
St. Louis, Mo.	455	1,034	679	231	238	1,589	242
Salt Lake City, Utah	1,492	689	1,200	1,356	925	579	1,402
San Francisco, Calif.	2,091	995	1,645	1,949	1,506	347	1,986
Seattle, Wash.	1,938	1,376	1,891	1,872	1,506	959	1,943
Washington, D. C.	396	1,728	1,220	494	945	2,300	476

Air Distances Between U. S. Cities

Source: U. S. Coast and Geodetic Survey.

Cities	Memphis	Miami	Minneapolis	New Orleans	New York	Omaha	Philadelphia
Birmingham, Ala.	217	665	862	312	864	732	783
Boston, Mass.	1,137	1,255	1,123	1,359	188	1,282	271
Buffalo, N. Y.	803	1,181	731	1,086	292	883	279
Chicago, Ill.	482	1,188	355	833	713	432	666
Cleveland, Ohio	630	1,087	630	924	405	739	360
Dallas, Tex.	420	1,111	862	443	1,374	586	1,299
Denver, Colo.	879	1,726	700	1,082	1,631	488	1,579
Detroit, Mich.	623	1,152	543	939	482	669	443
El Paso, Tex.	976	1,643	1,157	983	1,905	878	1,836
Houston, Tex.	484	968	1,056	318	1,420	794	1,341
Indianapolis, Ind.	384	1,024	511	712	646	525	585
Kansas City, Mo.	369	1,241	413	680	1,097	166	1,038
Los Angeles, Calif.	1,603	2,339	1,524	1,673	2,451	1,315	2,394
Louisville, Ky.	320	919	605	623	652	580	582
Memphis, Tenn.	....	872	699	358	957	529	881
Miami, Fla.	872	....	1,511	669	1,092	1,397	1,019
Minneapolis, Minn.	699	1,511	....	1,051	1,018	290	985
New Orleans, La.	358	1,051	669	....	1,171	847	1,089
New York, N. Y.	957	1,092	1,018	1,171	....	1,144	83
Omaha, Nebr.	529	1,397	290	847	1,144	....	1,094
Philadelphia, Pa.	881	1,019	985	1,089	83	1,094	....
Phoenix, Ariz.	1,263	1,982	1,280	1,316	2,145	1,036	2,083
Pittsburgh, Pa.	660	1,010	743	919	317	836	259
St. Louis, Mo.	240	1,061	466	598	875	354	811
Salt Lake City, Utah	1,250	2,089	987	1,434	1,972	833	1,925
San Francisco, Calif.	1,802	2,594	1,584	1,926	2,571	1,429	2,523
Seattle, Wash.	1,867	2,734	1,395	2,101	2,408	1,369	2,380
Washington, D. C.	765	923	934	966	205	1,014	123

Cities	Phoenix	Pittsburgh	St. Louis	Salt Lake City	San Francisco	Seattle	Washington
Birmingham, Ala.	1,456	608	400	1,466	2,013	2,082	661
Boston, Mass.	2,300	483	1,038	2,099	2,699	2,493	393
Buffalo, N. Y.	1,906	178	662	1,699	2,300	2,117	292
Chicago, Ill.	1,453	410	262	1,260	1,858	1,737	597
Cleveland, Ohio	1,749	115	492	1,568	2,166	2,026	306
Dallas, Tex.	887	1,070	547	999	1,483	1,681	1,185
Denver, Colo.	586	1,320	796	371	949	1,021	1,494
Detroit, Mich.	1,690	205	455	1,492	2,091	1,938	396
El Paso, Tex.	346	1,590	1,034	689	995	1,376	1,728
Houston, Tex.	1,017	1,137	679	1,200	1,645	1,891	1,220
Indianapolis, Ind.	1,499	330	231	1,356	1,949	1,872	494
Kansas City, Mo.	1,049	781	238	925	1,506	1,506	945
Los Angeles, Calif.	357	2,136	1,589	579	347	959	2,300
Louisville, Ky.	1,508	344	242	1,402	1,986	1,943	476
Memphis, Tenn.	1,263	660	240	1,250	1,802	1,867	765
Miami, Fla.	1,982	1,010	1,061	2,089	2,594	2,734	923
Minneapolis, Minn.	1,280	743	466	987	1,584	1,395	934
New Orleans, La.	1,316	919	598	1,434	1,926	2,101	966
New York, N. Y.	2,145	317	875	1,972	2,571	2,408	205
Omaha, Nebr.	1,036	836	354	833	1,429	1,369	1,014
Philadelphia, Pa.	2,083	259	811	1,925	2,523	2,380	123
Phoenix, Ariz.	....	1,828	1,272	504	653	1,114	1,983
Pittsburgh, Pa.	1,828	....	559	1,668	2,264	2,138	192
St. Louis, Mo.	1,272	559	....	1,162	1,744	1,724	712
Salt Lake City, Utah	504	1,668	1,162	....	600	701	1,848
San Francisco, Calif.	653	2,264	1,744	600	....	678	2,442
Seattle, Wash.	1,114	2,138	1,724	701	678	....	2,329
Washington, D. C.	1,983	192	712	1,848	2,442	2,329	....

Air Distances Between World Cities

Source: Encyclopaedia Britannica.

Cities	Berlin	Buenos Aires	Cairo	Calcutta	Capetown	Caracas	Chicago
Berlin, Germany	....	7,411	1,823	4,400	5,949	5,200	4,458
Buenos Aires, Argentina	7,411	....	7,428	10,212	4,332	3,108	5,598
Cairo, Egypt	1,823	7,428	....	3,525	4,476	6,350	6,231
Calcutta, India	4,400	10,212	3,525	....	6,000	9,583	8,050
Capetown, South Africa	5,949	4,332	4,476	6,000	....	6,303	8,551
Caracas, Venezuela	5,200	3,108	6,350	9,583	6,303	....	2,480
Chicago, Ill., U. S.	4,458	5,598	6,231	8,050	8,551	2,480	....
Hong Kong (Victoria)	5,490	11,400	5,033	1,625	7,309	10,180	7,863
Honolulu, Hawaii	7,384	7,653	8,925	7,075	11,655	6,000	4,315
Istanbul, Turkey	1,068	7,638	780	3,670	5,210	6,020	5,530
Lisbon, Portugal	1,410	5,900	2,365	5,607	5,208	4,038	4,004
London, England	575	6,919	2,218	4,965	5,975	4,641	4,015
Los Angeles, Calif., U. S.	5,849	6,148	7,675	8,208	10,165	3,610	1,741
Manila, Philippines	6,146	11,050	5,678	2,220	7,475	10,554	8,150
Mexico City, Mexico	6,119	4,609	7,807	9,500	8,620	2,222	1,690
Montreal, Canada	3,776	5,619	5,502	7,650	7,975	2,400	750
Moscow, U.S.S.R.	995	8,300	1,725	3,420	6,288	6,185	5,050
New Orleans, La., U. S.	5,182	4,902	6,862	8,754	8,390	1,990	760
New York, N. Y., U. S.	4,026	5,295	5,701	7,920	7,845	2,100	711
Paris, France	540	6,891	2,020	4,900	5,762	4,712	4,219
Rio de Janeiro, Brazil	6,246	1,250	6,242	9,235	3,850	2,742	5,320
San Francisco, Calif., U. S.	5,744	6,487	7,554	7,880	10,340	3,900	1,875
Shanghai, China	5,323	12,295	5,290	2,128	8,179	9,510	7,155
Stockholm, Sweden	503	7,700	2,085	4,177	6,290	5,423	4,347
Sydney, Australia	10,000	7,340	8,900	5,644	6,889	9,498	9,159
Tokyo, Japan	5,623	11,601	6,005	3,210	9,234	8,772	6,410
Warsaw, Poland	320	7,550	1,604	4,044	5,807	5,550	4,721
Washington, D. C., U. S.	4,156	5,100	5,810	8,115	7,888	2,040	594

Cities	Hong Kong	Honolulu	Istanbul	Lisbon	London	Los Angeles	Manila
Berlin, Germany	5,490	7,384	1,068	1,410	575	5,849	6,146
Buenos Aires, Argentina	11,400	7,653	7,638	5,900	6,919	6,148	11,050
Cairo, Egypt	5,033	8,925	780	2,365	2,218	7,675	5,678
Calcutta, India	1,625	7,075	3,670	5,607	4,965	8,208	2,200
Capetown, South Africa	7,309	11,655	5,210	5,208	5,975	10,165	7,475
Caracas, Venezuela	10,180	6,000	6,020	4,038	4,641	3,610	10,554
Chicago, Ill., U. S.	7,863	4,315	5,530	4,004	4,015	1,741	8,150
Hong Kong (Victoria)	....	5,615	5,000	6,830	6,010	7,345	715
Honolulu, Hawaii	5,615	....	8,200	7,835	7,320	2,620	5,310
Istanbul, Turkey	5,000	8,200	....	1,965	1,540	6,895	5,655
Lisbon, Portugal	6,830	7,835	1,965	....	975	5,650	7,500
London, England	6,010	7,320	1,540	975	....	5,496	6,680
Los Angeles, Calif., U. S.	7,345	2,620	6,895	5,650	5,496	....	7,300
Manila, Philippines	715	5,310	5,655	7,500	6,680	7,300	....
Mexico City, Mexico	8,820	3,846	7,160	5,400	5,605	1,445	8,825
Montreal, Canada	7,820	4,992	4,825	3,256	3,370	2,468	8,175
Moscow, U.S.S.R.	4,425	7,100	1,075	2,427	1,540	6,130	5,075
New Orleans, La., U. S.	8,525	4,305	6,220	4,390	4,656	1,695	8,725
New York, N. Y., U. S.	8,110	5,051	5,060	3,370	3,500	2,466	8,490
Paris, France	6,020	7,525	1,390	895	210	5,711	6,655
Rio de Janeiro, Brazil	10,945	8,400	6,420	4,705	5,747	6,330	11,250
San Francisco, Calif., U. S.	7,030	2,407	6,770	5,685	5,440	345	7,015
Shanghai, China	775	5,009	5,084	6,690	5,841	6,598	1,085
Stockholm, Sweden	5,116	6,955	1,300	1,848	885	5,558	5,760
Sydney, Australia	4,540	4,996	9,258	11,250	10,515	7,450	3,880
Tokyo, Japan	1,850	3,880	5,649	6,925	6,050	5,600	1,867
Warsaw, Poland	5,155	7,438	815	1,700	890	6,048	5,810
Washington, D. C., U. S.	8,245	4,919	5,195	3,558	3,700	2,295	8,560

Air Distances Between World Cities

Source: Encyclopaedia Britannica.

Cities	Mexico City	Montreal	Moscow	New Orleans	New York	Paris	Rio de Janeiro
Berlin, Germany	6,119	3,776	995	5,182	4,026	540	6,246
Buenos Aires, Argentina	4,609	5,619	8,300	4,902	5,295	6,891	1,250
Cairo, Egypt	7,807	5,502	1,725	6,862	5,701	2,020	6,242
Calcutta, India	9,500	7,650	3,420	8,754	7,920	4,900	9,325
Capetown, South Africa	8,620	7,975	6,288	8,390	7,845	5,762	3,850
Caracas, Venezuela	2,222	2,400	6,185	1,990	2,100	4,712	2,742
Chicago, Ill., U. S.	1,690	750	5,050	760	711	4,219	5,320
Hong Kong (Victoria)	8,820	7,820	4,425	8,525	8,110	6,020	10,945
Honolulu, Hawaii	3,846	4,992	7,100	4,305	5,051	7,525	8,400
Istanbul, Turkey	7,160	4,825	1,075	6,220	5,060	1,390	6,420
Lisbon, Portugal	5,400	3,256	2,427	4,390	3,370	895	4,705
London, England	5,605	3,370	1,540	4,656	3,500	210	5,747
Los Angeles, Calif., U. S.	1,445	2,468	6,130	1,695	2,466	5,711	6,330
Manila, Philippines	8,825	8,175	5,075	8,725	8,490	6,655	11,250
Mexico City, Mexico	....	2,247	6,700	940	2,110	5,800	4,810
Montreal, Canada	2,247	....	4,445	1,390	340	3,490	5,110
Moscow, U.S.S.R.	6,700	4,445	....	5,700	4,431	1,538	7,070
New Orleans, La., U. S.	940	1,390	5,700	....	1,161	4,846	4,798
New York, N. Y., U. S.	2,110	340	4,431	1,161	....	3,600	4,810
Paris, France	5,800	3,490	1,538	4,846	3,600	....	5,710
Rio de Janeiro, Brazil	4,810	5,110	7,070	4,798	4,810	5,710	....
San Francisco, Calif., U. S.	1,870	2,557	5,863	1,960	2,606	5,680	6,655
Shanghai, China	8,120	7,141	4,232	7,830	7,460	5,855	11,510
Stockholm, Sweden	6,000	3,710	770	5,985	3,955	950	6,555
Sydney, Australia	8,005	9,900	8,950	8,950	9,865	10,500	8,425
Tokyo, Japan	7,190	6,546	4,632	6,993	6,846	6,132	11,600
Warsaw, Poland	6,350	4,044	710	5,320	4,260	845	6,363
Washington, D. C., U. S.	1,890	470	4,907	875	204	3,830	4,796

Cities	San Francisco	Shanghai	Stockholm	Sydney	Tokyo	Warsaw	Washington
Berlin, Germany	5,744	5,323	503	10,000	5,623	320	4,156
Buenos Aires, Argentina	6,487	12,295	7,700	7,340	11,601	7,550	5,100
Cairo, Egypt	7,554	5,290	2,085	8,900	6,005	1,604	5,810
Calcutta, India	7,880	2,128	4,177	5,644	3,210	4,044	8,115
Capetown, South Africa	10,340	8,179	6,290	6,889	9,234	5,807	7,888
Caracas, Venezuela	3,900	9,510	5,423	9,498	8,772	5,550	2,040
Chicago, Ill., U. S.	1,875	7,155	4,347	9,159	6,410	4,721	594
Hong Kong (Victoria)	7,030	775	5,116	4,540	1,850	5,155	8,245
Honolulu, Hawaii	2,407	5,009	6,955	4,996	3,880	7,438	4,919
Istanbul, Turkey	6,770	5,084	1,300	9,258	5,649	815	5,195
Lisbon, Portugal	5,685	6,690	1,848	11,250	6,925	1,700	3,558
London, England	5,440	5,841	885	10,515	6,050	890	3,700
Los Angeles, Calif., U. S.	345	6,598	5,558	7,450	5,600	6,048	2,295
Manila, Philippines	7,015	1,085	5,760	3,880	1,867	5,810	8,560
Mexico City, Mexico	1,870	8,120	6,000	8,005	7,195	6,350	1,890
Montreal, Canada	2,557	7,141	3,710	9,900	6,546	4,044	470
Moscow, U.S.S.R.	5,863	4,232	770	8,950	4,632	710	4,907
New Orleans, La., U. S.	1,960	7,830	4,985	8,950	6,993	5,320	875
New York, N. Y., U. S.	2,606	7,460	3,955	9,865	6,846	4,260	204
Paris, France	5,680	5,844	950	10,500	6,132	845	3,830
Rio de Janeiro, Brazil	6,655	11,510	6,555	8,425	11,600	6,363	4,796
San Francisco, Calif., U. S.	....	6,245	5,450	7,320	5,250	5,918	2,437
Shanghai, China	6,245	....	4,855	4,814	1,095	4,990	7,509
Stockholm, Sweden	5,450	4,855	....	9,660	5,110	500	4,160
Sydney, Australia	7,320	4,814	9,660	....	4,800	9,650	9,755
Tokyo, Japan	5,250	1,095	5,110	4,800	....	5,356	6,779
Warsaw, Poland	5,918	4,990	500	9,650	5,356	....	4,488
Washington, D. C., U. S.	2,437	7,509	4,160	9,755	6,779	4,488	....

Leading Daily U. S. Newspapers

Source: Audit Bureau of Circulations: Publishers' Statements for 6-mo. period ending Mar. 31, 1955.

(NOTE: Where two or more newspapers are listed under a city, the order is according to size of total daily circulation.)

City and newspaper	Net Paid Circulation		
	Morning[1]	Evening[1]	Sunday
Akron (Ohio): BEACON JOURNAL	.....	155,154	162,175
Albany (N. Y.): TIMES-UNION	60,064	.....	119,115
Atlanta: CONSTITUTION (M); JOURNAL (E); JOURNAL & CONSTITUTION (S)	182,858	253,545	492,738
Baltimore: SUN	185,968[2]	212,101[2]	319,460
NEWS-POST (E); AMERICAN (S)	.....	232,203[2]	327,831
Birmingham: POST-HERALD (M); NEWS (E & S)	88,237	180,215	219,804
Boston: RECORD (M); AMERICAN (E); ADVERTISER (S)	393,485[2]	190,201[2]	554,033
HERALD (M & S); TRAVELER (E)	128,014[2]	198,653[2]	256,407
GLOBE	124,156[2]	159,106[2]	381,095
POST	264,020[2]	.....	216,173
CHRISTIAN SCIENCE MONITOR	.....	174,320	.....
Buffalo: NEWS	.....	296,593	.....
COURIER-EXPRESS	159,295	.....	305,250
Charlotte (N. C.): OBSERVER	137,693	.....	150,185
Chattanooga: TIMES (M & S); NEWS-FREE PRESS (E)	58,187	60,419	86,493
Chicago: TRIBUNE	907,570	.....	1,428,916
NEWS	.....	591,341[2]	.....
SUN-TIMES	556,885[2,3]	.....	587,630
AMERICAN	.....	524,656[2]	769,679
Cincinnati: ENQUIRER	202,951	.....	286,635
POST	.....	170,458	.....
TIMES-STAR	.....	160,260	.....
Cleveland: PRESS	.....	319,918	.....
PLAIN DEALER	302,536	.....	527,904
NEWS	.....	137,444	.....
Columbus (Ohio): DISPATCH	.....	170,249	239,553
CITIZEN	.....	92,436	105,879
Dallas: NEWS	196,407	.....	204,912
TIMES-HERALD	.....	169,029	170,313
Dayton (Ohio): NEWS	.....	148,719	175,484
Denver: POST	.....	244,045[2]	353,213
ROCKY MOUNTAIN NEWS	152,811	.....	158,614
Des Moines: REGISTER (M & S); TRIBUNE (E)	228,316	142,037	535,316
Detroit: NEWS	.....	456,189	563,038
FREE PRESS	433,274	.....	483,953
TIMES	.....	408,962	537,378
Evansville (Ind.): COURIER (M); PRESS (E); COURIER & PRESS (S)	61,301	46,820	90,342
Fort Wayne (Ind.): JOURNAL-GAZETTE (M & S); NEWS-SENTINEL (E)	62,017	76,073	91,872
Fort Worth: STAR-TELEGRAM	117,042	133,048	232,344
Grand Rapids (Mich.): PRESS	.....	112,281	.....
Harrisburg (Pa.): PATRIOT (M); NEWS (E); PATRIOT-NEWS (S)	37,658	83,638	123,623
Hartford (Conn.): TIMES	.....	113,857	.....
COURANT	90,393	.....	135,990
Honolulu: ADVERTISER	49,168[2]	.....	67,059
Houston: CHRONICLE	.....	205,043[2]	226,515
POST	202,456	.....	218,637
PRESS	.....	122,967[2]	.....
Indianapolis: STAR	203,041	.....	311,092
NEWS	.....	165,884	.....
Jacksonville (Fla.): TIMES-UNION	138,844	.....	150,437
Kansas City (Mo.): STAR (E & S); TIMES (M)	343,025	350,464	369,656
Knoxville: NEWS-SENTINEL	.....	108,761	113,216
Little Rock (Ark): GAZETTE	95,325	.....	106,738
Long Beach (Calif.): INDEPENDENT PRESS-TELEGRAM	40,948	95,661	126,715
Los Angeles: TIMES	431,989	.....	826,929
EXAMINER	339,180	.....	701,994
HERALD & EXPRESS	.....	318,143[2]	.....
MIRROR & DAILY NEWS	.....	266,232[2]	.....
Louisville: COURIER-JOURNAL (M & S); TIMES (E)	210,834	171,855	313,261
Memphis: COMMERCIAL APPEAL (M & S); PRESS-SCIMITAR (E)	207,108	134,575	257,803
Miami: HERALD	255,057	.....	300,922

[1] Unless otherwise indicated, figure is an average of the Monday-through-Saturday circulation. [2] Figure is an average of the Monday-through-Friday circulation; i.e., Saturday circulation, if any, has not been used in making the average. [3] Published all day. [4] Post office address is Garden City.

City and newspaper	Net Paid Circulation		
	Morning[1]	Evening[1]	Sunday
NEWS	.....	135,488	114,613
Milwaukee: JOURNAL	.....	347,772	483,104
SENTINEL	179,985	.....	230,597
Minneapolis: STAR (E); TRIBUNE (M & S)	205,710	289,629	626,214
Nashville: TENNESSEAN	112,947	.....	197,438
Nassau County[4] Long Island, N. Y.): NEWSDAY	.....	234,134	.....
New Orleans: TIMES-PICAYUNE (M); STATES (E); TIMES-PICAYUNE-STATES (S)	178,926	105,656[2]	286,447
New York: NEWS	2,094,564[2]	.....	3,694,851
MIRROR	879,757[2]	.....	1,616,281
JOURNAL & AMERICAN	.....	681,751[2]	912,290
TIMES	555,726[2]	.....	1,227,708
WORLD-TELEGRAM & SUN	.....	560,280[2]	.....
POST	.....	417,550[2]	298,830
HERALD TRIBUNE	387,276[2]	.....	566,609
LONG ISLAND PRESS (Jamaica, N. Y.)	.....	240,743	285,068
WALL STREET JOURNAL (Eastern Edition)	158,063[2]	.....	.....
Newark (N. J.): NEWS	.....	283,566[2]	307,142
STAR-LEDGER	205,895	.....	314,769
Norfolk-Portsmouth-South Norfolk: VIRGINIAN-PILOT (M & S); LEDGER-DISPATCH (E)	103,936	66,666	122,709
Oakland (Calif.): TRIBUNE	.....	192,804	214,453
Oklahoma City: OKLAHOMAN (M & S); TIMES (E)	155,911	111,422	268,361
Omaha: WORLD-HERALD	134,018	120,449	266,475
Philadelphia: BULLETIN	.....	712,885[2]	707,216
INQUIRER	618,225[2]	.....	1,129,042
NEWS	.....	182,755[2]	.....
Phoenix: REPUBLIC (M & S); GAZETTE (E)	96,071	64,434	132,060
Pittsburgh: PRESS	.....	298,803	498,302
POST-GAZETTE	257,246	.....	.....
SUN-TELEGRAPH	.....	185,278	440,599
Portland (Maine): PRESS-HERALD (M); EXPRESS (E); TELEGRAM (S)	47,689	30,979	93,222
Portland (Oreg.): OREGONIAN	233,168	.....	297,263
JOURNAL	.....	182,257[2]	203,399
Providence (R. I.): JOURNAL (M & S); BULLETIN (E)	49,561	147,613	182,961
Raleigh (N. C.): NEWS & OBSERVER	122,407	.....	132,453
Richmond (Va.): TIMES-DISPATCH (M & S); NEWS-LEADER (E)	126,344	101,345	178,284
Rochester (N. Y.): DEMOCRAT & CHRONICLE (M & S); TIMES-UNION (E)	119,344	123,140	176,398
Sacramento: BEE	.....	136,325	.....
St. Louis: POST-DISPATCH	.....	397,531[2]	478,774
GLOBE-DEMOCRAT	288,085[2]	.....	366,685
St. Paul: DISPATCH (E); PIONEER PRESS (M & S)	91,014	120,464	180,009
Salt Lake City: TRIBUNE (M & S); DESERET NEWS-SALT LAKE TELEGRAM (E)	92,044	88,475	177,062
San Antonio: EXPRESS (M); NEWS (E); EXPRESS-NEWS (S)	70,444[2]	62,154[2]	113,572
LIGHT	.....	104,252[2]	135,500
San Diego: EVENING TRIBUNE	.....	105,455	.....
UNION	71,346	.....	154,486
San Francisco: EXAMINER	233,928	.....	510,389
CHRONICLE	167,795	.....	244,150
CALL-BULLETIN	.....	134,610[2]	.....
NEWS	.....	106,983[2]	.....
Seattle: TIMES	.....	209,764[2]	243,630
POST-INTELLIGENCER	184,736	.....	263,392
Shreveport (La.): TIMES (M & S); JOURNAL (E)	81,925	52,141	100,178
South Bend-Mishawaka (Ind.): TRIBUNE	.....	110,427	113,089
Spokane (Wash.): SPOKESMAN-REVIEW	88,278	.....	145,023
Syracuse (N. Y.): HERALD-JOURNAL (E); HERALD-AMERICAN (S)	.....	134,904	221,533
Tampa (Fla.): TRIBUNE	126,890	.....	140,723
Toledo: BLADE	.....	191,797	173,244
Tulsa (Okla.): WORLD (M & S); TRIBUNE (E)	88,848	73,656	149,322
Washington (D. C.): POST & TIMES HERALD	380,624[2]	.....	410,185
EVENING STAR; SUNDAY STAR	.....	250,285[2]	281,949
NEWS	.....	163,867[2]	.....
Wichita (Kans.): EAGLE	93,213	69,792	108,547
BEACON	.....	105,339	139,095
Winston-Salem: JOURNAL (M); TWIN CITY SENTINEL (E); JOURNAL-SENTINEL (S)	54,617	34,949	67,906
Worcester (Mass.): TELEGRAM (M & S); GAZETTE (E)	54,601	103,077	105,558
Youngstown (Ohio): VINDICATOR & TELEGRAM	.....	96,974	139,083

English Language Daily and Sunday U. S. Newspapers

(as of Sept. 30, 1954)

Source: Editor & Publisher.

State	Morning papers	& circulation	Evening papers	& circulation	Total M & E	& circulation	Sunday papers	& circulation
Alabama	3	175,890	16	407,762	19	583,652	13	506,983
Arizona	4	112,443	9	113,041	13	225,484	4	153,225
Arkansas	5	138,309	28	208,441	33	346,750	8	286,314
California	21	1,493,279	100	2,444,925	121	3,938,204	24	3,172,790
Colorado	3	177,176	22	376,740	25	554,516	9	601,742
Connecticut	6	182,157	19	516,459	25	698,616	6	442,154
Delaware	1	26,528	2	73,575	3	100,103	0	.....
D. C.	1	380,607	2	399,197	3	779,804	2	666,626
Florida	11	667,143	29	472,192	40	1,139,335	27	1,008,252
Georgia	5	339,354	25	483,985	30	823,339	10	750,875
Idaho	4	60,953	11	71,843	15	132,796	5	95,733
Illinois	9	1,435,040	79	2,346,122	88	3,781,162	18	3,292,748
Indiana	11	423,832	76	1,122,720	87	1,546,552	18	928,858
Iowa	4	303,681	40	623,008	44	926,689	8	798,134
Kansas	4	188,487	50	500,831	54	689,318	14	478,217
Kentucky	7	287,374	24	397,498	31	684,872	13	497,319
Louisiana	4	297,618	15	397,518	19	695,136	9	604,931
Maine	5	179,371	5	70,965	10	250,336	2	167 947
Maryland	4	216,105	8	514,247	12	730,352	3	659,985
Massachusetts	8	1,079,553	44	1,492,691	52	2,572,244	10	1,713,157
Michigan	2	505,409	52	1,787,530	54	2,292,939	12	2,009,563
Minnesota	4	346,675	25	635,321	29	981,996	5	880,365
Mississippi	5	72,209	15	173,331	20	245,540	10	164,827
Missouri	9	734,313	49	1,036,049	58	1,770,362	13	1,364,207
Montana	4	87,806	14	71,983	18	159,789	10	143,872
Nebraska	3	170,680	17	285,721	20	456,401	5	339,682
Nevada	1	11,747	7	56,351	8	68,098	3	49,979
New Hampshire	1	22,353	9	87,110	10	109,463	1	34,617
New Jersey	6	356,078	20	904,085	26	1,260,163	8	749,548
New Mexico	1	35,582	16	106,303	17	141,885	11	109,099
New York	22	4,701,531	71	3,706,136	93	8,407,667	19	9,577,324
North Carolina	12	488,464	36	474,857	48	963,321	16	631,864
North Dakota	3	56,353	9	93,183	12	149,536	2	83,247
Ohio	8	773,975	89	2,536,102	97	3,310,077	18	2,092,163
Oklahoma	8	292,492	44	406,107	52	698,599	40	659,270
Oregon	4	265,166	18	352,238	22	617,404	7	585,454
Pennsylvania	28	1,380,773	102	2,750,219	130	4,130,992	14	3,281,320
Rhode Island	1	48,629	6	236,528	7	285,157	2	186,652
South Carolina	8	298,360	10	137,547	18	435,907	7	322,482
South Dakota	1	2,767	11	154,480	12	157,247	6	109,907
Tennessee	8	477,736	22	512,724	30	990,460	12	808,590
Texas	23	1,076,191	89	1,553,504	112	2,629,695	76	2,282,959
Utah	1	92,432	4	132,269	5	224,701	4	220,671
Vermont	2	49,348	8	44,086	10	93,434	1	12,842
Virginia	10	362,937	23	404,594	33	767,531	13	545,697
Washington	6	315,504	19	575,854	25	891,358	10	822,899
West Virginia	9	241,927	21	262,647	30	504,574	9	400,179
Wisconsin	3	239,817	36	823,207	39	1,063,024	6	849,860
Wyoming	6	32,682	4	33,218	10	65,900	3	31,321
Total U. S., Sept. 30, 1954	317	21,705,436	1,448	33,367,044	1,765	55,072,480	544	46,176,450
Total U. S., Sept. 30, 1953	327	21,412,474	1,458	33,059,812	1,785	54,472,286	544	45,948,554
Total U. S., Sept. 30, 1952	327	21,159,527	1,459	32,791,088	1,786	53,950,615	545	46,210,136
Total U. S., Sept. 30, 1951	319	21,222,525	1,454	32,795,413	1,773	54,017,938	543	46,279,358
Total U. S., Sept. 30, 1950	322	21,266,126	1,450	32,562,946	1,772	53,829,072	549	46,582,348
Total U. S., Sept. 30, 1949	329	21,004,650	1,451	31,840,901	1,780	52,845,551	546	46,398,968
Total U. S., Sept. 30, 1948	328	21,081,905	1,453	31,203,392	1,781	52,285,297	530	46,308,081
Total U. S., Sept. 30, 1947	328	20,762,317	1,441	30,910,959	1,769	51,673,276	511	45,151,319
Total U. S., Sept. 30, 1946	334	20,545,908	1,429	30,381,597	1,763	50,927,505	497	43,665,364

The Leading Magazines of the United States

Source: Audit Bureau of Circulations: Publishers' Statements for period ending Dec. 31, 1954.

Magazine	Circulation[1]
American Girl (M)	502,796
American Home (M)	3,092,342
The American Legion Magazine (M)	2,771,818
The American Magazine (M)	2,660,502
Argosy (M)	1,250,832
Better Homes & Gardens (M)	4,098,362
Boys' Life (M)	1,039,289
Charm (M)	651,355
Collier's (BW)	3,712,187
Columbia (M)	833,769
Coronet (M)	2,688,661
The Eagle Magazine (M)[2]	705,749
Esquire (M)	775,043
Everywoman's (M)	1,700,006
Family Circle (M)	4,085,572
Field & Stream (M)	814,638
Glamour (M)	610,052
Good Housekeeping (M)	3,495,997
Grit (W)	727,193
Holiday (M)	846,515
House and Garden (M)	517,023
House Beautiful (M)	671,879
Household (M)	2,419,866
Junior Scholastic (W)[3]	883,748
Ladies' Home Journal (M)	4,950,472
Life (W)	5,507,456
Living for Young Homemakers (M)	530,066
Look (BW)	3,877,651
Mademoiselle (M)	537,287
McCall's Magazine (M)	4,558,602
Mechanix Illustrated (M)	870,410
Modern Romances (M)	1,068,064
Modern Screen (M)	1,340,798
Motion Picture (M)	850,329
The National Geographic Magazine (M)	2,100,009
Nation's Business (M)	761,487
Newsweek (W)	991,452
Our Sunday Visitor (W)	734,714
Outdoor Life (M)	856,652
Parents' Magazine (M)	1,617,561
Pathfinder, the Town Journal (M)	1,593,529
Photoplay (M)	1,443,987
Popular Mechanics Magazine (M)	1,238,065
Popular Science Monthly (M)	1,153,946
Reader's Digest (M)	[4]
Redbook Magazine (M)	2,150,258
The Saturday Evening Post (W)	4,583,227
Science and Mechanics (BM)	502,802
Scouting (M)[5]	897,419
Secrets (M)	607,492
See (BM)	782,387
Seventeen (M)	933,808
Sports Afield (M)	815,022
Sports Illustrated (W)	523,129
Sunset (M)	561,105
Time (W)	1,860,512
True (M)	1,756,964
True Confessions (M)	1,456,096
True Romance (M)	677,529
True Story (M)	2,589,178
TV Guide (all editions) (W)	1,701,260
TV Radio Mirror (M)	670,393
U. S. News & World Report (W)	714,760
V.F.W. Magazine (M)	1,089,4[illegible]
Woman's Day (M)	3,794,[illegible]
Woman's Home Companion (M)	4,215,92[illegible]
The Workbasket (M)	1,538,[illegible]
Young Catholic Messenger (W)[3]	623,65[illegible]

[1] Average net paid circulation. [2] Bimonthly August and September. [3] Weekly during school year, except holiday periods. [4] The publisher's figure is over 10,500,000. [5] Except that May and June, and July and August issues are combined. NOTE: W—weekly; M—monthly; BW—biweekly; BM—bimonthly.

Radio and Television Stations and Networks

Source: National Association of Radio and Television Broadcasters.

Major networks	Standard broadcast stations (Jan. 1, 1955) Owned and operated	Standard broadcast stations (Jan. 1, 1955) Affiliated	TV Stations (May 1, 1955) Owned and operated
ABC—American Broadcasting Company	5	349	5
CBS—Columbia Broadcasting System	6	216	4
DM—Du Mont Television Network	..	...	2
MBS—Mutual Broadcasting System	..	572	..
NBC—National Broadcasting Company	5	209	5

Number of stations* (Jan. 1, 1955)	Operating	Permits for construction	Total
Standard broadcast	2,669	105	2,774
FM (Frequency modulation)	552†	7	559
Television	439‡	137	576

* Including territories and possessions. † Includes 20 CP's operating on special temporary authority. ‡ Includes 26 licensed and 313 CP's operating on special temporary authority.

Patents

Source: Patent Office.

A patent, in the most general sense, is a document issued by a government, conferring some special right or privilege. The term is now restricted mainly to patents for inventions; occasionally, land patents.

The grant of a patent for an invention gives the inventor the privilege, for a limited period of time, of excluding others from practicing a certain art or from making, using, or selling a certain article. However, it does not give him the right to make, use, or sell his own invention if it is an improvement on some unexpired patent whose claims are infringed thereby.

In the U. S., the law provides that a patent may be granted, for a term of 17 years, to any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, as well as any new and useful improvements thereof. A patent may also be granted to a person who has invented or discovered and asexually reproduced a new and distinct variety of plant (other than a tuber-propagated one) or has invented a new, original, and ornamental design for an article of manufacture.

A patent is granted only upon a regularly filed application, complete in all rsepects upon payment of the fees; and upon determination that the disclosure is complete and that the invention is new and useful. The disclosure must be of such nature as to enable others to reproduce the invention.

A complete application, which must be addressed to the Commisisoner of Patents, Washington, D. C., consists of a petition, specification and claims, oath, drawing (whenever the nature of the case admits of it), and a filing fee of $30 for cases having 20 claims or less. An additional fee of $1 per claim is required for cases having more than 20 claims. The filing fee is not returned to the applicant if the patent is refused. If the patent is allowed, another fee of $30 (and $1 each for claims allowed in excess of 20) is required before the patent is issued. The fees for design patents vary.

Applications are considered in the order in which they are received. Patents are not granted for printed matter, for methods of doing business, or for devices for which claims contrary to natural laws are made. Applications for a perpetual-motion machine have been made from time to time, but until a working model is presented that actually fulfills the claim, no patent will be issued.

Trade-Marks

Source: Patent Office.

A trade-mark may be defined as a word, letter, device, or symbol, as well as some combination of these, which is used in connection with merchandise and which points distinctly to the origin or ownership of the article to which it is applied.

Certificates of registration of trade-marks are issued under the seal of the Patent Office and may be registered by the owner if he is engaged in interstate or foreign commerce, since any Federal jurisdiction over trade-marks arises under the commerce clause of the Constitution. Trade-marks may be registered by foreign owners who comply with our law, as well as by citizens of foreign countries with which the U. S. has treaties relating to trade-marks. American citizens may register trade-marks in foreign countries by complying with the laws of those countries. The right to registration and protection of trade-marks in many foreign countries is guaranteed by treaties.

General jurisdiction in trade-mark cases is given to the federal courts. Decisions of examiners on applications or oppositions are subject to appeal to the Commissioner of Patents and from him to the U. S. Court of Customs and Patent Appeals. Before adopting a trade-mark, a person should make a search of prior marks in order to avoid infringing unwittingly upon them.

The duration of a trade-mark registration is 20 years, but it may be renewed indefinitely for 20-year periods, provided the trade-mark is still in use at the time of expiration.

Television Statistics

Source: MART Magazine, Caldwell-Clements, Inc.

Year	TV sets mfd.	Retail value	Picture tubes mfd.	Retail value	TV stations on air	Homes with TV	TV sets in use in U. S.
1946	10,000	$ 5,000,000	20,000	$ 1,000,000	5	8,000	8,000
1947	250,000	100,000,000	300,000	15,000,000	20	250,000	250,000
1948	1,000,000	350,000,000	1,500,000	75,000,000	44	1,000,000	1,000,000
1949	3,000,000	950,000,000	3,500,000	210,000,000	100	4,000,000	4,000,000
1950	7,500,000	2,700,000,000	8,000,000	400,000,000	107	10,400,000	10,500,000
1951	5,600,000	2,100,000,000	6,000,000	300,000,000	108	15,500,000	15,750,000
1952	6,300,000	2,360,000,000	6,500,000	260,000,000	123	21,000,000	22,210,000
1953	7,300,000	1,675,000,000	9,000,000	360,000,000	350	26,000,000	28,000,000
1954	7,100,000	1,278,000,000	10,300,000	360,500,000	415	30,000,000	33,000,000

Copyrights

Source: Copyright Office.

A copyright is a statutory right obtained by authors, musicians and artists or their assigns, upon compliance with the provisions of the copyright law, to prevent the reproduction of their works without their consent. The U. S. Constitution (Article I, Section 8) empowers Congress "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The copyright owner possesses the exclusive right to print, reprint, publish, copy and vend the copyrighted work. Among some of the other rights possessed by the copyright owner are the exclusive rights to translate and dramatize literary works, to control public performance of dramas, and, in the case of nondramatic literary works and musical compositions, to control public performance for profit. Special provisions in regard to mechanical reproductions of musical compositions are included. pamphlets; periodicals and contributions to periodicals; lectures, sermons, and monologues; dramas and dramatical musical compositions; musical compositions; maps; works of art or models and designs for works of art; reproductions of a work of art; drawings or plastic works of scientific or technical character; photographs, prints, and pictorial illustrations; commercial prints and labels; and motion pictures.

Copyright term endures 28 years from date of registration in the Copyright Office for unpublished material and from the date of publication for published works. The copyright may be renewed for an additional period of 28 years, provided application for such renewal is made within one year prior to the date of expiration of the original term. The copyright of a book or similar publication is secured by publication of such work after printing on the title page, or the page immediately following, the required copyright notice. This notice consists of the word *Copyright* or the abbreviation *Copr.*, the year of publication, and the name of the copyright owner. It is important to bear in mind that copyright comes into being at the time of first publication if this required notice appears on the work. If publication occurs without this notice, the work falls into the public domain, and the Copyright Office cannot register the claim. In short, the Copyright Office does not grant copyrights; the obtaining of such protection depends on whether or not the claimant follows the statutory formalities at the time of publication. In view of the fact that those formalities vary with the different classes of works subject to copyright, persons interested in securing copyright should obtain circular No. 35 from the Register of Copyrights, Library of Congress, Washington 25.

The law requires that, promptly after the work has been published, two copies thereof (foreign works, one copy) must be promptly deposited in the Copyright Office. These copies should be accompanied by the proper application form and the statutory fee of $4. If the work is a commercial print or label used with the sale or advertisement of an article of merchandise, the fee is $6.

Effective June 3, 1949, the term of ad interim protection for books and periodicals in the English language first published abroad was extended to five years. Such works may be imported into the U. S. up to a total of 1,500 copies after ad interim registration has been obtained. The above amendment to the law also affords to the foreign author or publishers an option of obtaining registration without payment of the usual statutory fee if an extra copy of the work, accompanied by a catalogue card, is submitted to the Copyright Office within six months of the date of first publication abroad.

The Act of Aug. 31, 1954, modified a number of existing formalities, primarily with regard to certain foreign works, and was designed to implement the Universal Copyright Convention, which was ratified by the Senate on June 25, 1954, and took effect on Sept. 16, 1955. One principal modification is that U. S. authors and publishers may use the symbol "©" instead of *Copyright* or the abbreviation *Copr.*

Application forms may be obtained from the Copyright Office free upon request. Bulletin 14, the U. S. copyright law, can be purchased from the Register of Copyrights for 20¢.

Radio and Phonograph Statistics for U. S.

Source: MART Magazine, Caldwell-Clements, Inc.

Type	Number*	Type	Number*
Radios: Homes with	50,000,000	Turntables: 78 rpm only	14,200,000
Secondary sets in homes	37,000,000	33 rpm only	300,000
Sets in business, etc.	8,000,000	45 rpm only	2,100,000
Automobile radios	32,000,000	78 and 33 rpm	100,000
Total radios	127,000,000	3-speed	12,500,000
Radio operators licensed	745,000	Total turntables	29,200,000
Amateur stations	119,000		

* In operation as of Jan. 1, 1955. NOTE: Radio sets in rest of world: North America (except U. S.), 11,000,000; South America, 12,000,000; Europe, 71,000,000; Asia, 18,000,000; Australia, 6,800,000; Africa, 3,900,000. Total sets in world (including U. S.): 249,700,000.

Accredited U. S. Colleges and Universities

Spring Semester, 1955

Only schools fully accredited by at least one of the six regional accrediting associations are listed. The number of students is for matriculated undergraduate and graduate students who are working for a degree.

M—Male; F—Female; C—Coeducational; Co—Co-ordinate

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Abilene Christian College; Abilene, Tex. (1906)	Don H. Morris	1,711 C	Private
Adams State College; Alamosa, Colo. (1921)	Fred J. Plachy	596 C	State
Adelphi College; Garden City, N. Y. (1896)	Paul D. Eddy	1,817 C	Private
Agnes Scott College; Decatur, Ga. (1889)	Wallace M. Alston	535 F	Presbyterian[4]
Akron, University of; Akron, Ohio (1870)	Norman P. Auburn	3,305 C	City
Alabama, University of; University, Ala. (1831)	Oliver C. Carmichael	6,152 C	State
Alabama A & M College; Normal, Ala. (1875) (N)	J. F. Drake	1,045 C	State
Alabama College; Montevallo, Ala. (1896)	F. Edward Lund	524 F	State
Alabama Polytechnic Institute; Auburn, Ala. (1872)	Ralph B. Draughon	6,521 C	State
Alabama State College for Negroes; Montgomery, Ala. (N)[19]	H. C. Trenholm	2,379 C	State
Alabama State Teachers College; Florence, Ala. (1872)	E. B. Norton	1,076 C	State
Alabama State Teachers College; Jacksonville, Ala. (1883)	Houston Cole	1,751 C	State
Alabama State Teachers College; Livingston, Ala. (1840)	D. P. Culp	372 C	State
Alabama State Teachers College; Troy, Ala. (1887)	C. B. Smith	859 C	State
Alaska, University of; College, Alaska (1917)	E. N. Patty	380 C	Terr. & Federal
Albany State College; Albany, Ga. (1903) (N)	William H. Dennis, Jr.	419 C	State
Albertus Magnus College; New Haven, Conn. (1925)	Sister Mary Lucia	253 F	Catholic[4]
Albion College; Albion, Mich. (1835)	William W. Whitehouse	1,138 C	Methodist[4]
Albright College; Reading, Pa. (1856)	Harry V. Masters	582 C	Evan. Un. Breth.[4]
Alcorn A & M College; Lorman, Miss. (1871) (N)	J. R. Otis	528 C	State
Alfred University; Alfred, N. Y. (1836)	M. Ellis Drake	916 C	Private
Allegheny College; Meadville, Pa. (1815)	Louis T. Benezet	980 C	Methodist[4]
Allen University; Columbia, S. C. (1870) (N)	Samuel R. Higgins	695 C	A.M.E.
Alliance College; Cambridge Springs, Pa. (1912)	A. P. Coleman	167 C	Private
Alma College; Alma, Mich. (1886)	John S. Harker	539 C	Presbyterian
Alverno College; Milwaukee, Wis. (1890)	Sister M. Augustine	681 F	Catholic[4]
American International College; Springfield, Mass. (1885)	John F. Hines	1,319 C	Private
American University; Washington, D. C. (1893)	Hurst R. Anderson	4,008 C	Methodist
Amherst College; Amherst, Mass. (1821)	Charles W. Cole	1,045 M	Private
Anderson College & Theological Seminary; Anderson, Ind. (1917)	John A. Morrison	811 C	Church of God
Antioch College; Yellow Springs, Ohio (1853)	Samuel B. Gould	980 C	Private
Appalachian State Teachers College; Boone, N. C. (1903)	B. B. Dougherty	2,051 C	State
Aquinas College; Grand Rapids, Mich. (1922)	Msgr. A. F. Bukowski	447 C	Catholic
Arizona, University of; Tucson, Ariz. (1885)	Richard A. Harvill	5,343 C	State
Arizona State College; Flagstaff, Ariz. (1899)	Lacey A. Eastburn	746 C	State
Arizona State College; Tempe, Ariz. (1885)	Grady Gammage	4,238 C	State
Arkansas, University of; Fayetteville, Ark. (1871)	John T. Caldwell	5,620 C	State
Arkansas A & M College; College Heights, Ark. (1909)	Horace E. Thompson	825 C	State
Arkansas Polytechnic College; Russellville, Ark. (1909)	J. W. Hull	833 C	State
Arkansas State A & M & Normal College; Pine Bluff, Ark. (1873) (N)	Lawrence A. Davis	1,023 C	State
Arkansas State College; Jonesboro, Ark. (1909)	Carl R. Reng	1,609 C	State
Arkansas State Teachers College; Conway, Ark. (1907)[6]	Silas D. Snow	1,034 C	State
Aroostook State Teachers College; Presque Isle, Maine (1903)	Clifford O. T. Wieden	20 C	State
Asbury College; Wilmore, Ky. (1890)	Z. T. Johnson	820 C	Methodist[4]
Ashland College; Ashland, Ohio (1878)	Glenn L. Clayton	561 C	Brethren
Assumption College; Worcester, Mass. (1904)	V. Rev. A. H. Desautels	190 M[6]	Catholic[4]
Atlanta University System:			
Atlanta University; Atlanta Ga. (1865) (N)	Rufus E. Clement	631 C	Private
Morehouse College; Atlanta, Ga. (1867) (N)	Benjamin E. Mays	575 M	Private
Spelman College; Atlanta, Ga. (1881) (N)	Albert E. Manley	470 F	Baptist[4]
Atlantic Union College; South Lancaster, Mass. (1882)	L. M. Stump	382 C	7th Day Adven.
Augsburg College & Theological Seminary; Minneapolis (1869)	Bernhard Christensen	601 C	Lutheran
Augustana College; Rock Island, Ill. (1860)	Conrad Bergendoff	1,144 C	Lutheran
Augustana College; Sioux Falls, S. Dak. (1860)	Lawrence M. Stavig	888 C	Lutheran
Aurora College; Aurora, Ill. (1893)	Theodore P. Stephens	296 C	Adven. Christ.
Austin College; Sherman, Tex. (1849)	John D. Moseley	610 C	Presbyterian
Austin Peay State College; Clarksville, Tenn. (1929)	Halbert Harvill	1,142 C	State
Babson Institute; Babson Park, Mass. (1919)	Edward B. Hinckley	500 M	Private
Baker University; Baldwin, Kans. (1858)	Nelson P. Horn	482 C	Methodist
Baldwin-Wallace College; Berea, Ohio (1845)	H. J. Smith[13]	1,099 C	Methodist
Ball State Teachers College; Muncie, Ind. (1918)	John R. Emens	3,300 C	State
Barat College of the Sacred Heart; Lake Forest, Ill. (1858)	Mother Margaret Burke	221 F	Catholic[4]

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
arber-Scotia College; Concord, N. C. (1867) (N)	L. S. Cozart	200 C	Presbyterian
ard College; Annandale-on-Hudson, N. Y. (1860)	James H. Case, Jr.	228 C	Private[4,5]
arnard College; New York, N. Y. (1889)[7]	Millicent C. McIntosh	1,200 F	Private
arry College; Miami, Fla. (1940)	Rev. Mother M. Gerald	291 F[8]	Catholic[4]
ates College; Lewiston, Maine (1864)	Charles F. Phillips	797 C	Private[9]
aylor University; Waco, Tex. (1845)	William R. White	4,778 C	Baptist
eaver College; Jenkintown, Pa. (1853)	Raymon Kistler	538 F	Presbyterian[4]
elhaven College; Jackson, Miss. (1894)	McFerran Crowe	150 C	Presbyterian
ellarmine College; Plattsburgh, N. Y. (1952)	V. Rev. John J. McMahon	119 M	Catholic
eloit College; Beloit, Wis. (1846)	Miller Upton	940 C	Private[10]
enedict College; Columbia, S. C. (1870) (N)	J. A. Bacoats	671 C	Baptist[4]
ennett College; Greensboro, N. C. (1873) (N)	David D. Jones	467 F	Methodist[4]
ennington College; Bennington, Vt. (1925)	Frederick Burkhardt	324 F[8]	Private
erea College; Berea, Ky. (1855)	Francis S. Hutchins	1,063 C	Private
ethany College; Bethany, W. Va. (1840)	Perry E. Gresham	499 C	Disc. of Christ[4]
ethany College; Lindsborg, Kans. (1881)	Robert A. L. Mortvedt	239 C	Lutheran
ethel College; McKenzie, Tenn. (1842)	Roy N. Baker	550 C	Presbyterian
ethel College; North Newton, Kans. (1887)	D. C. Wedel	341 C	Mennonite
ethune-Cookman College; Daytona Beach, Fla. (1904) (N)	Richard V. Moore	697 C	Methodist
irmingham-Southern College; Birmingham, Ala. (1856)	George R. Stuart	786 C	Methodist
ishop College; Marshall, Tex. (1881) (N)[19]	Earl Oldham	315 C	Baptist
lack Hills Teachers College; Spearfish, S. Dak. (1883)	Russell E. Jonas	450 C	State
lackburn College; Carlinville, Ill. (1857)	Robert P. Ludlum	317 C	Presbyterian[4]
lue Mountain College; Blue Mountain, Miss. (1873)	Lawrence T. Lowrey	251 F[8]	Baptist
luefield State College; Bluefield, W. Va. (1895) (N)	S. J. Wright	354 C	State
luffton College; Bluffton, Ohio (1900)	Lloyd L. Ramseyer	242 C	Mennonite
oston College; Chestnut Hill, Mass. (1863)	V. Rev. J. R. N. Maxwell	6,472 C	Catholic[4]
oston University; Boston, Mass. (1839)	Harold C. Case	16,563 C	Methodist[4]
owdoin College; Brunswick, Maine (1794)	James S. Coles	726 M	Private[10]
owling Green State University; Bowling Green, Ohio (1910)	Ralph W. McDonald	3,243 C	State
radford Durfee Technical Institute; Fall River, Mass. (1904)	Leslie B. Coombs	251 C	State
radley University; Peoria, Ill. (1897)	Harold P. Rodes	2,711 C	Private
randeis University; Waltham, Mass. (1948)	Abram L. Sachar	957 C	Private
renau College; Gainesville, Ga. (1878)	Josiah Crudup	256 F	Private
riar Cliff College; Sioux City, Iowa (1930)	Sister Jean Marie	357 F	Catholic
ridgeport, University of; Bridgeport, Conn. (1927)	James H. Halsey	2,824 C	Private
ridgewater College; Bridgewater, Va. (1880)	Warren D. Bowman	433 C	Brethren
righam Young University; Provo, Utah (1875)	Ernest L. Wilkinson	6,581 C	Latter-day Saints
rooklyn, Polytechnic Institute of; Brooklyn, N. Y. (1854)	H. S. Rogers	5,591 M[6]	Private
rooklyn College. See New York, College of the City of	.....	.....	.....
rown University; Providence, R. I. (1764)	Henry M. Wriston	3,272 Co[12]	Private
ryn Mawr College; Bryn Mawr, Pa. (1885)	Katharine E. McBride	761 F[8]	Private
ucknell University; Lewisburg, Pa. (1846)	Merle M. Odgers	1,861 C	Baptist[4]
uena Vista College; Storm Lake, Iowa (1891)	John A. Fisher	502 C	Presbyterian
uffalo, University of; Buffalo, N. Y. (1846)	Clifford C. Furnas[14]	7,289 C	Private
utler University; Indianapolis, Ind. (1855)	M. O. Ross	2,659 C	Disc. of Christ[4]
aldwell College for Women; Caldwell, N. J. (1939)	Mother Mary Joseph	210 F	Catholic[4]
alifornia, University of; Berkeley, Calif. (1868)	Robert G. Sproul	34,628 C	State
Berkeley Campus	Clark Kerr[14]	15,587 C	State
Davis Campus	Stanley B. Freeborn[18]	1,575 C	State
Lick Observatory; Mt. Hamilton	C. Donald Shane[47]	.....	State
Los Angeles Campus (UCLA)	Raymond B. Allen[14]	13,835 C	State
Medical Center; San Francisco	.....	1,517 C	State
Riverside Campus	Gordon S. Watkins[18]	512 C	State
Santa Barbara College	Clark G. Kuebler[18]	1,628 C	State
Scripps Institution of Oceanography; La Jolla	Roger R. Revelle[47]	35 C	State
alifornia College of Arts & Crafts; Oakland, Calif. (1907)	Daniel S. Defenbacher	553 C	Private
alifornia Institute of Technology; Pasadena, Calif. (1891)	Lee A. DuBridge	981 M	Private
alifornia School of Fine Arts; San Francisco, Calif. (1874)	Gordon Woods[47]	270 C	Private
alifornia State Polytechnic College; San Luis Obispo, Calif. (1901)	Julian A. McPhee	2,536 M	State
alvin College; Grand Rapids, Mich. (1876)	William Spoelhof	1,380 C	Christian Ref.
anisius College; Buffalo, N. Y. (1870)	V. Rev. P. E. Dobson	2,094 M[6]	Catholic[4]
apital University; Columbus, Ohio (1850)	Harold L. Yochum	1,237 C	Lutheran
ardinal Stritch College; Milwaukee, Wis. (1934)[6]	Mother M. Bartholomew	137 F	Catholic[4]
arleton College; Northfield, Minn. (1866)	Laurence M. Gould	873 C	(15)
arnegie Institute of Technology; Pittsburgh, Pa. (1900)	John C. Warner	3,012 C	Private
arroll College; Helena, Mont. (1910)	V. Rev. R. V. Kavanagh	439 C	Catholic
arroll College; Waukesha, Wis. (1846)	Robert D. Steele	650 C	Presbyterian[4]
arson-Newman College; Jefferson City, Tenn. (1851)	D. Harley Fite	916 C[11]	Baptist
arthage College; Carthage, Ill. (1870)	Harold H. Lentz	548 C	Lutheran
ascade College; Portland, Oreg. (1918)	C. J. Pike	235 C	Private

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Case Institute of Technology; Cleveland, Ohio (1880)	T. Keith Glennan	1,790 M[6]	Private
Catawba College; Salisbury, N. C. (1851)	A. R. Keppel	506 C	Evan. & Ref.[4]
Catholic University of America; Washington, D. C. (1887)	Most Rev. B. J. McEntegart[16]	3,280 C	Catholic
Cedar Crest College; Allentown, Pa. (1867)	Dale H. Moore	377 F	Evan. & Ref.[4]
Centenary College of Louisiana; Shreveport, La. (1825)	Joe J. Mickle	1,575 C	Methodist
Central College; Fayette, Mo. (1854)	Ralph L. Woodward	508 C	Methodist
Central College; Pella, Iowa (1853)	G. T. Vander Lugt	353 C	Reformed
Central Michigan College of Education; Mt. Pleasant, Mich. (1892)	Charles L. Anspach	2,488 C	State
Central Missouri State College; Warrensburg, Mo. (1871)	G. W. Diemer	1,503 C	State
Central State College; Edmond, Okla. (1890)	W. Max Chambers	1,462 C	State
Central State College; Wilberforce, Ohio (1887)	Charles H. Wesley	903 C	State
Central Washington College of Education; Ellensburg, Wash. (1891)	Robert E. McConnell	1,381 C	State
Centre College of Kentucky; Danville, Ky. (1819)	Walter A. Groves	403 Co	Presbyterian[4]
Charleston, College of; Charleston, S. C. (1770)	George D. Grice	270 C	Private
Chattanooga, University of; Chattanooga, Tenn. (1886)	David A. Lockmiller	1,086 C	Methodist[4]
Chestnut Hill College; Philadelphia, Pa. (1871)	Sister Catharine Frances	441 F	Catholic[4]
Chicago, School of the Art Institute of; Chicago, Ill. (1879)	Hubert Ropp[17]	738 C	Private
Chicago, University of; Chicago, Ill. (1890)	Lawrence A. Kimpton[14]	5,029 C	Private
Chicago Teachers College; Chicago, Ill. (1869)	Raymond M. Cook[17]	2,044 C	City
Chico State College; Chico, Calif. (1887)	Glenn Kendall	1,528 C	State
Cincinnati, University of; Cincinnati, Ohio (1819)	Raymond Walters	6,449 C	City
Citadel, The; Military College of S. C.; Charleston, S. C. (1842)	Gen. Mark W. Clark	1,500 M	State
City College. See New York, College of the City of			
Claremont College; Claremont, Calif. (1925)	George C. S. Benson[18]	240 C	Private
Claremont Men's College; Claremont, Calif. (1947)	George C. S. Benson	340 M	Private
Clark College; Atlanta, Ga. (1869) (N)[5]	James P. Brawley	634 C	Methodist
Clark University; Worcester, Mass. (1887)	Howard B. Jefferson	797 Co	Private
Clarke College; Dubuque, Iowa (1843)	Sister M. A. Leone	474 F	Catholic[4]
Clarkson College of Technology; Potsdam, N. Y. (1896)	William G. Van Note	1,004 M	Private
Clemson Agricultural College; Clemson, S. C. (1889)	Robert F. Poole	2,559 C	State
Coe College; Cedar Rapids, Iowa (1851)	Howell H. Brooks	683 C	Presbyterian[4]
Coker College; Hartsville, S. C. (1908)	Joseph C. Robert	221 F[8]	Private
Colby College; Waterville, Maine (1813)	Julius S. Bixler	1,041 C	Private[4]
Colgate University; Hamilton, N. Y. (1819)	Everett Case	1,299 M	Private
Colorado, University of; Boulder & Denver Colo. (1876)	Ward Darley	8,682 C	State
Colorado A & M College; Fort Collins, Colo. (1870)	William E. Morgan	3,585 C	State
Colorado College; Colorado Springs, Colo. (1874)	William H. Gill	905 C	Private
Colorado School of Mines; Golden, Colo. (1874)	John W. Vanderwilt	943 M[6]	State
Colorado State College of Education; Greeley, Colo. (1890)	William R. Ross	2,201 C	State
Columbia College; Columbia, S. C. (1854)	R. Wright Spears	472 F[8]	Methodist
Columbia University; New York, N. Y. (1754)[7]	Grayson Kirk	25,360 C	Private
Concord College; Athens, W. Va. (1872)	Virgil H. Stewart	890 C	State
Concordia College; Moorhead, Minn. (1891)	Joseph L. Knutson	1,255 C	Lutheran
Concordia Teachers College; River Forest, Ill. (1864)	Rev. Martin L. Koehneke	644 C	Lutheran
Concordia Teachers College; Seward, Nebr. (1894)	Paul A. Zimmerman	327 C	Lutheran
Connecticut, University of; Storrs, Conn. (1881)	A. N. Jorgensen	9,162 C	State
Connecticut College; New London, Conn. (1911)	Rosemary Park	845 F	Private
Connecticut State Teachers College; Danbury, Conn. (1904)	Ruth A. Haas	101 C	State
Connecticut State Teachers College; New Britain, Conn. (1849)	Herbert D. Welte	1,125 C	State
Connecticut State Teachers College; New Haven, Conn. (1893)	Hilton C. Buley	2,016 C	State
Connecticut State Teachers College; Willimantic, Conn. (1889)	J. Eugene Smith	233 C	State
Converse College; Spartanburg, S. C. (1889)	E. M. Gwathmey	317 F[8]	Private
Coppin State Teachers College; Baltimore, Md. (1901) (N)	Miles W. Connor	245 C	State
Cooper Union; New York, N. Y. (1859)	Edwin S. Burdell	1,289 C	Private
Cornell College; Mount Vernon, Iowa (1853)	Russell D. Cole	625 C	Methodist[4]
Cornell University; Ithaca, N. Y. (1865)	Deane W. Malott	9,700 C	Private
Creighton University; Omaha, Nebr. (1878)	V. Rev. Carl M. Reinert	2,483 C	Catholic[4]
Culver-Stockton College; Canton, Mo. (1853)	L. E. Ziegler	265 C	Disc. of Christ[4]
Dakota Wesleyan University; Mitchell, S. Dak. (1885)	Matthew D. Smith	285 C	Methodist[4]
Dartmouth College; Hanover, N. H. (1770)	John S. Dickey	2,886 M	Private
Davidson College; Davidson, N. C. (1837)	John R. Cunningham	845 M	Presbyterian
Davis & Elkins College; Elkins, W. Va. (1903)	David K. Allen	484 C	Presbyterian
Dayton, University of; Dayton, Ohio (1850)	Rev. Andrew L. Seebold	3,966 C	Catholic
Delaware, University of; Newark, Del. (1833)	John A. Perkins	2,879 C	State
Delaware State College; Dover, Del. (1891) (N)	Jerome H. Holland	197 C	State
Delta State College; Cleveland, Miss. (1924)	William M. Kethley	441 C	State
Denison University; Granville, Ohio (1831)	A. Blair Knapp	1,255 C	Baptist[4]
Denver, University of; Denver, Colo. (1864)	Chester M. Alter[14]	4,796 C	Methodist[4]
De Paul University; Chicago, Ill. (1898)	V. Rev. C. J. O'Malley	4,659 C	Catholic
DePauw University; Greencastle, Ind. (1837)	Russell J. Humbert	1,724 C	Methodist[4]
Detroit, University of; Detroit, Mich. (1877)	Rev. Celestin J. Steiner	7,725 C	Catholic

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
ckinson College; Carlisle, Pa. (1773)	William W. Edel	837 C	Methodist[4]
llard University; New Orleans, La. (1930) (N)	Albert W. Dent	715 C	Cg.-Chr. & Meth.[4]
ane College; Crete, Nebr. (1872)	Donald M. Typer	307 C	Congregational[4]
minican College of San Rafael; San Rafael, Calif. (1890)	Sister M. Patrick	397 F	Catholic[4]
uglass College; New Brunswick, N. J. (1918)[26]	Mary A. I. Bunting	1,037 F	State
ake University; Des Moines, Iowa (1881)	Henry G. Harmon	2,394 C	Disc. of Christ[4]
ew University; Madison, N. J. (1867)	Fred G. Holloway	743 C	Methodist[4]
exel Institute of Technology; Philadelphia, Pa. (1891)	James Creese	7,053 C	Private
opsie College; Philadelphia, Pa. (1907)	Abraham A. Neuman	126 C	Private
ury College; Springfield, Mo. (1873)	J. F. Findlay	749 C	Congregational[4]
ıbuque, University of; Dubuque, Iowa (1852)	Gaylord M. Couchman	532 C	Presbyterian[4]
ıchesne College of the Sacred Heart; Omaha, Nebr. (1881)	Mother J. Kimball	252 F	Catholic[4]
ıke University; Durham, N. C. (1838)	A. Hollis Edens	5,011 C	Private
ınbarton College of Holy Cross; Washington, D. C. (1935)	Sister M. M. Dolores	180 F	Catholic[4]
ıquesne University; Pittsburgh, Pa. (1878)	V. Rev. V. F. Gallagher	3,738 C	Catholic
Youville College; Buffalo, N. Y. (1908)	Sister Regina Marie	485 F	Catholic[4]
rlham College; Richmond, Ind. (1847)	Thomas E. Jones	650 C	Quaker
st Carolina College; Greenville, N. C. (1907)	John D. Messick	2,496 C	State
st Central State College; Ada, Okla. (1909)	Charles F. Spencer	1,622 C	State
st Tennessee State College; Johnson City, Tenn. (1911)	Burgin E. Dossett	2,663 C	State
st Texas State Teachers College; Commerce, Tex. (1894)	James G. Gee	1,874 C	State
stern Baptist College; St. Davids, Pa. (1952)	Gilbert L. Guffin	150 C	Baptist[4]
stern Baptist Theological Seminary, The; Philadelphia, Pa. (1925)	Gilbert L. Guffin	177 C	Baptist[4]
stern Illinois State College; Charleston, Ill. (1895)	Robert G. Buzzard	1,537 C	State
stern Kentucky State College; Richmond, Ky. (1906)	W. F. O'Donnell	1,814 C	State
stern Montana College of Education; Billings, Mont. (1925)	A. G. Peterson	622 C	State
stern Nazarene College; Quincy, Mass. (1918)	Edward S. Mann	540 C	Nazarene
stern New Mexico University; Portales, N. Mex. (1934)	Floyd D. Golden	1,070 C	State
stern Oregon College of Education; La Grande, Oreg. (1929)	Frank B. Bennett	474 C	State
stern Washington College of Education; Cheney, Wash. (1890)	Don S. Patterson	995 C	State
izabethtown College; Elizabethtown, Pa. (1899)	A. C. Baugher	409 C	Brethren
mhurst College; Elmhurst, Ill. (1871)	H. W. Dinkmeyer	691 C	Evan. & Ref.[4]
mira College; Elmira, N. Y. (1855)	J. Ralph Murray	294 F	Private
on College; Elon College, N. C. (1889)	Leon E. Smith	913 C	Cong. Christian
merson College; Boston, Mass. (1880)	S. Justus McKinley	272 C	Private
mmanuel College; Boston, Mass. (1919)	Sister Alice Gertrude	597 F	Catholic[4]
mmanuel Missionary College; Berrien Springs, Mich. (1874)	F. O. Rittenhouse	926 C	7th Day Adven.
mory & Henry College; Emory, Va. (1836)	Foye G. Gibson	477 C	Methodist
mory University; Atlanta, Ga. (1836)	Goodrich C. White	2,766 C	Methodist
mporia, The College of; Emporia, Kans. (1882)	Luther E. Sharpe	206 C	Presbyterian
rskine College; Due West, S. C. (1839)	J. Mauldin Lesesne	266 C	Presbyterian
vansville College; Evansville, Ind. (1854)	Melvin W. Hyde	936 C	Methodist[4]
irfield University; Fairfield, Conn. (1942)	V. Rev. J. D. Fitzgerald	954 M[6]	Catholic
irleigh Dickinson College; Rutherford & Teaneck, N. J. (1941)	Peter Sammartino	5,214 C	Private[20]
irmont State College; Fairmont, W. Va. (1867)	John W. Pence	800 C	State
nn College; Cleveland, Ohio (1881)	G. Brooks Earnest	4,160 C	Private
rris Institute; Big Rapids; Mich. (1884)	Victor F. Spathelf	1,115 C	State
sk University; Nashville, Tenn. (1866) (N)	Charles S. Johnson	779 C	Private
lora Macdonald College; Red Springs, N. C. (1896)	Marshall S. Woodson	236 F[8]	Presbyterian
lorida, University of; Gainesville, Fla. (1853)	J. Wayne Reitz	9,272 C	State
lorida A & M University; Tallahassee, Fla. (1887) (N)	George W. Gore, Jr.	2,242 C	State
lorida Nor. & Ind. Memorial College; St. Augustine (1892) (N)	R. W. Puryear	265 C	Baptist
lorida Southern College; Lakeland, Fla. (1885)[5]	Ludd M. Spivey	1,936 C	Methodist
lorida State University; Tallahassee, Fla. (1851)	Doak S. Campbell	5,380 C	State
ontbonne College; St. Louis, Mo. (1923)[50]	Sister S. M. Vachon	325 F	Catholic[4]
ordham University; New York, N. Y. (1841)	Rev. Laurence J. McGinley	8,000 C[21]	Catholic
ort Hays Kansas State College; Hays, Kans. (1901)	M. C. Cunningham	1,600 C	State
ort Valley State College; Fort Valley, Ga. (1895) (N)	C. V. Troup	712 C	State
ranklin & Marshall College; Lancaster, Pa. (1787)	William Webster Hall	1,055 M	Evan. & Ref.[4]
ranklin College; Franklin, Ind. (1834)	Harold W. Richardson	473 C	Baptist[4]
resno State College; Fresno, Calif. (1911)	Arnold E. Joyal	4,464 C	State
riends University; Wichita, Kans. (1898)	Lloyd S. Cressman	545 C	Quaker
urman University; Greenville, S. C. (1826)	John L. Plyler	1,210 C	Baptist
annon College; Erie, Pa. (1944)	Joseph J. Wehrle	1,005 M	Catholic
en. Assembly's Trn'g Sch. for Lay Workers; Richmond, Va. (1914)	Rev. C. E. S. Kraemer	33 C	Presbyterian
eneral Beadle State Teachers College; Madison, S. Dak. (1851)	V. A. Lowry	298 C	State
eneva College; Beaver Falls, Pa. (1848)	Charles M. Lee	710 C	Presbyterian
eorge Peabody College for Teachers; Nashville, Tenn. (1875)	Henry H. Hill	1,491 C	Private
eorge Pepperdine College; Los Angeles, Calif. (1937)	Hugh M. Tiner	859 C	Ch. of Christ[4]
eorge Washington University; Washington, D. C. (1821)	Cloyd H. Marvin	6,612 C	Private
eorge Williams College; Chicago, Ill. (1890)	John R. McCurdy	232 C	Private

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Georgetown College; Georgetown, Ky. (1798)	H. Leo Eddleman	750 C	Baptist
Georgetown University; Washington, D. C. (1789)	V. Rev. Edward B. Bunn.	5,271 C	Catholic
Georgia, Medical College of; Augusta, Ga. (1828)	Edgar R. Pund	339 C	State
Georgia, University of; Athens, Ga. (1785)	O. C. Aderhold	4,850 C	State
Georgia Institute of Technology; Atlanta, Ga. (1885)	Blake R. Van Leer	4,258 C	State
Georgia State College for Women; Milledgeville, Ga. (1889)	Henry K. Stanford	568 F	State
Georgia Teachers College; Collegeboro, Ga. (1929)	Zach S. Henderson	584 C	State
Georgian Court College; Lakewood, N. J. (1908)	Mother Marie Anna	250 F	Catholic[4]
Gettysburg College; Gettysburg, Pa. (1832)	Walter C. Langsam	1,238 C	Lutheran[4]
Glenville State College; Glenville, W. Va. (1872)	Harry B. Heflin	517 C	State
Golden Gate College; San Francisco, Calif. (1901)	Nagel T. Miner	2,343 C	Private
Gonzaga University; Spokane, Wash. (1887)	Francis E. Corkery	1,019 C	Catholic
Good Counsel College; White Plains, N. Y. (1923)	Mother Mary Dolores	263 F	Catholic[4]
Goshen College; Goshen, Ind. (1903)	Paul Mininger	583 C	Mennonite
Goucher College; Baltimore, Md. (1885)	Otto F. Kraushaar	613 F	Private
Grambling College; Grambling, La. (1901) (N)	R. W. E. Jones	1,898 C	State
Great Falls, College of; Great Falls, Mont. (1932)	Msgr. James J. Donovan	507 C	Catholic[4]
Greensboro College; Greensboro, N. C. (1838)	Harold H. Hutson	321 C	Methodist
Greenville College; Greenville, Ill. (1892)	H. J. Long	500 C	Methodist
Grinnell College; Grinnell, Iowa (1846)	Howard R. Bowen	820 C	Private
Grove City College; Grove City, Pa. (1876)	Weir C. Ketler	1,041 C	Presbyterian[4]
Guilford College; Guilford College, N. C. (1837)	Clyde A. Milner	558 C	Quaker[4]
Gustavus Adolphus College; St. Peter, Minn. (1862)	Edgar M. Carlson	868 C	Lutheran
Hamilton College; Clinton, N. Y. (1812)	Robert W. McEwen	575 M	Private
Hamline University; St. Paul, Minn. (1854)	Paul H. Giddens	884 C	Methodist[4]
Hampden-Sydney College; Hampden-Sydney, Va. (1776)	Edgar G. Gammon	54 M	Presbyterian[4]
Hampton Institute; Hampton, Va. (1868) (N)	Alonzo G. Moron	1,192 C	Private
Hanover College; Hanover, Ind. (1827)	Albert G. Parker, Jr.	600 C	Presbyterian[4]
Hardin-Simmons University; Abilene, Tex. (1891)	Evan A. Reiff	1,300 C	Baptist
Harding College; Searcy, Ark. (1919)	George S. Benson	114 C	Ch. of Christ
Harpur College. See New York, State University of			
Harris Teachers College; St. Louis, Mo. (1857)	Charles A. Naylor	999 C	City
Hartwick College; Oneonta, N. Y. (1928)	M. A. F. Ritchie	380 C	Lutheran[4]
Harvard University; Cambridge, Mass. (1636)	Nathan M. Pusey	10,364 M[6]	Private
Hastings College; Hastings, Nebr. (1882)	Dale D. Welch	592 C	Presbyterian[4]
Haverford College; Haverford, Pa. (1833)	Gilbert F. White	450 M	Quaker[4]
Hawaii, University of; Honolulu, Hawaii (1907)	Gregg M. Sinclair	3,759 C	Territory
Heidelberg College; Tiffin, Ohio (1850)	Terry Wickham	575 C	Evan. & Ref.[4]
Henderson State Teachers College; Arkadelphia, Ark. (1890)	D. D. McBrien	973 C	State
Hendrix College; Conway, Ark. (1884)	Matt L. Ellis	419 C	Methodist
High Point College; High Point, N. C. (1922)	Dennis H. Cooke	864 C	Methodist
Hillsdale College; Hillsdale, Mich. (1844)	J. Donald Phillips	527 C	Baptist[4]
Hiram College; Hiram, Ohio (1850)	Paul H. Fall	496 C	Disc. of Christ[4]
Hobart College; Geneva, N. Y. See Seneca, Colleges of the			
Hofstra College; Hempstead, N. Y. (1939)	John C. Adams	3,611 C	Private
Hollins College; Hollins College, Va. (1842)	John R. Everett	478 F	Private
Holy Cross, College of the; Worcester, Mass. (1843)	V. Rev. W. A. Donaghy	1,817 M	Catholic[4]
Holy Names, College of the; Oakland, Calif. (1868)	Sister Imelda Maria	315 F	Catholic[4]
Holy Names College; Spokane, Wash. (1907)	Sister M. Theresa	235 F	Catholic[4]
Hood College; Frederick, Md. (1893)	Andrew G. Truxal	423 F	Evan. & Ref.[4]
Hope College; Holland, Mich. (1851)	Irwin J. Lubbers	849 C	Reformed
Houghton College; Houghton, N. Y. (1883)	Stephen W. Paine	587 C	Methodist
Howard College; Birmingham, Ala. (1842)	Harwell G. Davis	1,327 C	Baptist
Howard University; Washington, D. C. (1867) (N)[5]	Mordecai W. Johnson	3,333 C	Private
Humboldt State College; Arcata, Calif. (1914)	Cornelius H. Siemens	1,010 C	State
Hunter College. See New York, College of the City of			
Huntingdon College; Montgomery, Ala. (1854)	Hubert Searcy	636 C	Methodist[4]
Huron College; Huron, S. Dak. (1883)	Daniel E. Kerr	291 C	Presbyterian
Huston-Tillotson College; Austin, Tex. (1952) (N)	Matthew S. Davage	507 C	Cong. & Meth.
Idaho, College of; Caldwell, Idaho (1891)	Tom E. Shearer	532 C	Presbyterian[4]
Idaho, University of; Moscow, Idaho (1889)	D. R. Theophilus[13]	3,170 C	State
Idaho State College; Pocatello, Idaho (1901)	Carl W. McIntosh	1,726 C	State
Illinois, University of; Urbana-Champaign & Chicago, Ill. (1867)	Lloyd Morey	21,743 C	State
Illinois College; Jacksonville, Ill. (1829)	William K. Selden	273 C	Cong. & Presb.[4]
Illinois Institute of Technology; Chicago, Ill. (1892)	John T. Rettaliata	6,345 C	Private
Illinois State Normal University; Normal, Ill. (1857)	Arthur H. Larsen[13]	2,505 C	State
Illinois Wesleyan University; Bloomington, Ill. (1850)	Merrill J. Holmes	848 C	Methodist[4]
Immaculata College; Immaculata, Pa. (1920)	(Vacant)	388 F	Catholic
Immaculate Heart College; Los Angeles, Calif. (1916)	Sister Mary Thecla	774 F[8]	Catholic
Incarnate Word College; San Antonio, Tex. (1881)	Sister M. Columkille	661 F[8]	Catholic[4]
Indiana Central College; Indianapolis, Ind. (1902)	I. Lynd Esch	430 C	Evan. Un. Breth

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Indiana State Teachers College; Terre Haute, Ind. (1870)	Raleigh W. Holmstedt	2,284 C	State
Indiana University; Bloomington & Indianapolis Ind. (1820)	H. B. Wells	18,441 C	State
Iona College; New Rochelle, N. Y. (1940)	Brother W. H. Barnes	1,700 M	Catholic[4]
Iowa, State University of; Iowa City, Iowa (1847)	Virgil M. Hancher	8,301 C	State
Iowa State College of A & M Arts; Ames, Iowa (1858)	James H. Hilton	8,131 C	State
Iowa State Teachers College; Cedar Falls, Iowa (1876)[5]	J. W. Maucker	2,099 C	State
Iowa Wesleyan College; Mount Pleasant, Iowa (1842)	J. Raymond Chadwick	357 C	Methodist
Jackson College; Jackson, Miss. (1877) (N)	Jacob L. Reddix	974 C	State
Jackson College; Medford, Mass. (1910)[41]	Katharine R. Jeffers[17]	500 Co	Private
Jamestown College; Jamestown, N. Dak. (1883)	Edwin H. Rian	398 C	Presbyterian[4]
Jarvis Christian College; Hawkins, Tex. (1912) (N)	Cleo W. Blackburn	177 C	Disc. of Christ
Jewish Theological Seminary of America; New York, N. Y. (1887)	Louis Finkelstein[14]	538 C	Jewish[4]
John Carroll University; Cleveland, Ohio (1886)	V. Rev. F. E. Welfle	1,981 M[6]	Catholic[4]
Johns Hopkins University; Baltimore, Md. (1876)	Lowell J. Reed	3,558 C	Private
Johnson C. Smith University; Charlotte, N. C. (1867) (N)	H. Liston	584 C	Presbyterian
Judson College; Marion, Ala. (1838)	J. I. Riddle	230 F	Baptist
Juniata College; Huntingdon, Pa. (1876)	Calvert N. Ellis	598 C	Brethren
Kalamazoo College; Kalamazoo, Mich. (1833)	Weimer K. Hicks	473 C	Baptist[4]
Kansas, University of; Lawrence, Kans. (1865)	Franklin D. Murphy[14]	7,231 C	State
Kansas City, University of; Kansas City, Mo. (1929)	Earl J. McGrath	2,329 C	Private
Kansas State College of Agr. & App. Sci.; Manhattan, Kans. (1863)	James A. McCain	5,153 C	State
Kansas State Teachers College; Emporia, Kans. (1863)	John E. King	1,577 C	State
Kansas State Teachers College; Pittsburg, Kans. (1903)	Rees H. Hughes	1,849 C	State
Kent State University; Kent, Ohio (1910)	George A. Bowman	4,936 C	State
Kentucky, University of; Lexington, Ky. (1865)	H. L. Donovan	5,367 C	State
Kentucky State College; Frankfort, Ky. (1886) (N)	Rufus B. Atwood	429 C	State
Kentucky Wesleyan College; Owensboro, Ky. (1860)	Oscar W. Lever	402 C	Methodist[4]
Kenyon College; Gambier, Ohio (1824)	Gordon K. Chalmers	482 M	Episcopal[4]
Keuka College; Keuka Park, N. Y. (1921)	Katherine G. Blyley	329 F	Baptist[4]
King College; Bristol, Tenn. (1866)	R. T. L. Liston	250 C	Presbyterian
Knox College; Galesburg, Ill. (1837)	Sharvy G. Umbeck	755 C	Private
Knoxville College; Knoxville, Tenn. (1875) (N)	James A. Colston	447 C	Presbyterian
Lafayette College; Easton, Pa. (1826)	Ralph C. Hutchison	1,413 M	Presbyterian[4]
La Grange College; La Grange, Ga. (1831)	Waights G. Henry, Jr.	298 C	Methodist
Lake Erie College; Painesville, Ohio (1856)	Paul Weaver	248 F	Private
Lake Forest College; Lake Forest, Ill. (1857)	Ernest A. Johnson	597 C	Presbyterian[4]
Lane College; Jackson, Tenn. (1882) (N)	C. A. Kirkendoll	394 C	Colored M.E.[4]
Lander College; Greenwood, S. C. (1872)	B. M. Grier	252 C	County
Langston University; Langston, Okla. (1897) (N)	G. L. Harrison	707 C	State
La Salle College; Philadelphia, Pa. (1863)	Brother E. Stanislaus	2,675 M	Catholic[4]
La Sierra College; Arlington, Calif. (1922)	Norval F. Pease	766 C	7th Day Adven.
Lawrence College; Appleton, Wis. (1847)	Douglas M. Knight	784 C	Methodist[4]
Lebanon Valley College; Annville, Pa. (1866)	F. K. Miller	522 C	Evan. Un. Breth.
Lehigh University; Bethlehem, Pa. (1865)	Martin D. Whitaker	2,900 M[6]	Private
LeMoyne College; Memphis, Tenn. (1870) (N)	Hollis F. Price	470 C	Congregational[4]
Le Moyne College; Syracuse, N. Y. (1946)	V. Rev. Robert F. Grewen	943 C	Catholic
Lenoir Rhyne College; Hickory, N. C. (1891)	Voigt R. Cromer	793 C	Lutheran
Lesley College; Cambridge, Mass. (1909)	Trentwell M. White	355 F	Private
Lewis & Clark College; Portland, Oreg. (1867)	Morgan S. Odell	953 C	Presbyterian
Limestone College; Gaffney, S. C. (1845)	A. J. Eastwood	258 F	Private
Lincoln Memorial University; Harrogate, Tenn. (1897)	Robert L. Kincaid	483 C	Private
Lincoln University; Jefferson City, Mo. (1866) (N)	Sherman D. Scruggs	599 C	State
Lincoln University; Lincoln University, Pa. (1854)	Horace M. Bond	252 M[6]	Presbyterian[4]
Lindenwood College; St. Charles, Mo. (1827)	F. L. McCluer	332 F	Presbyterian
Linfield College; McMinnville, Oreg. (1848)	Harry L. Dillin	505 C	Baptist[4]
Livingstone College; Salisbury, N. C. (1879) (N)	William J. Trent	387 C	A. M. E. Zion
Long Beach State College; Long Beach, Calif. (1949)	P. Victor Peterson	2,509 C	State
Longwood College; Farmville, Va. (1884)	Francis G. Lankford, Jr.	703 F[8]	State
Loras College; Dubuque, Iowa (1839)	M. Rev. Loras T. Lane	876 M	Catholic
Loretto Heights College; Loretto, Colo. (1891)	Sister Frances Marie	567 F	Catholic[4]
Los Angeles City College; Los Angeles, Calif. (1927)	Howard S. McDonald	743 C	City
Los Angeles St. Coll. of App. Arts & Sciences; Los Angeles (1947)	Howard S. McDonald	7,306 C	State
Louisville, University of; Louisville, Ky. (1798)	Philip A. Davidson	5,132 C	City
Louisiana College; Pineville, La. (1906)[5]	G. Earl Guinn	600 C	Baptist
Louisiana Polytechnic Institute; Ruston, La. (1894)	R. L. Ropp	2,341 C	State
Louisiana State University & A & M Coll.; Baton Rouge, La. (1860)	Troy H. Middleton	6,035 C	State
Lowell Technological Institute; Lowell, Mass. (1897)	Martin J. Lydon	635 C	State
Loyola College; Baltimore, Md. (1852)	Rev. Thomas J. Murray	949 C[22]	Catholic[4]
Loyola University; Chicago, Ill. (1870)	V. Rev. James T. Hussey	7,491 C	Catholic
Loyola University; Los Angeles, Calif. (1911)	Charles S. Casassa	1,262 M[6]	Catholic[4]
Loyola University; New Orleans, La. (1904)	V. Rev. W. P. Donnelly	2,798 C	Catholic[4]

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Luther College; Decorah, Iowa (1861)	J. W. Ylvisaker	918 C	Lutheran
Lycoming College; Williamsport, Pa. (1812)	D. Frederick Wertz	621 C	Methodist
Lynchburg College; Lynchburg, Va. (1903)	Orville W. Wake	565 C	Disc. of Christ[4]
Macalester College; St. Paul, Minn. (1885)	Charles J. Turck	1,210 C	Presbyterian[4]
MacMurray College; Jacksonville, Ill. (1846)	Louis W. Norris	444 F[8]	Methodist
Madison College; Harrisonburg, Va. (1908)	G. Tyler Miller	1,019 F[8]	State
Maine, University of; Orono, Maine (1865)	Arthur A. Hauck	2,855 C	State
Maine Maritime Academy; Castine, Maine (1941)	W. W. Warlick[28]	207 M	State & Federal
Maine State Teachers College; Farmington, Me. (1864)	Ermo H. Scott	320 C	State
Maine State Teachers College; Gorham, Maine (1878)	Francis Bailey	513 C	State
Manchester College; North Manchester, Ind. (1889)	Vernon F. Schwalm	738 C	Brethren
Manhattan College; New York, N. Y. (1853)	Brother A. Philip	2,652 M	Catholic[4]
Manhattanville College of the Sacred Heart; Purchase, N. Y. (1841)	Eleanor M. O'Byrne	503 F[8]	Private
Marietta College; Marietta, Ohio (1835)	W. Bay Irvine	724 C	Congregational[4]
Marquette University; Milwaukee, Wis. (1881)	V. Rev. E. J. O'Donnell	6,965 C	Catholic[4]
Marshall College; Huntington, W. Va. (1837)	Stewart H. Smith	2,855 C	State
Mary Baldwin College; Staunton, Va. (1842)	Charles W. McKenzie	230 F	Presbyterian[4]
Mary Hardin-Baylor College; Belton, Tex. (1845)	Arthur Tyson	352 F	Baptist
Mary Manse College; Toledo, Ohio (1922)	Sister Vincent de Paul	525 F	Catholic
Mary Washington College; Fredericksburg, Va. (1908)[23]	M. L. Combs	1,600 F[8]	State
Marygrove College; Detroit, Mich. (1910)	Sister M. Honora	696 F	Catholic[4]
Maryknoll Teachers College; Maryknoll, N. Y. (1931)	Mother Mary Joseph	132 F	Catholic[4]
Maryland, University of; College Park, Md. (1807)[49]	Wilson H. Elkins	13,959 C	State
Maryland State Teachers College; Bowie, Md. (1867) (N)	William E. Henry	346 C	State
Maryland State Teachers College; Frostburg, Md. (1902)	R. Bowen Hardesty	439 C	State
Maryland State Teachers College; Salisbury, Md. (1925)	J. D. Blackwell	337 C	State
Maryland State Teachers College; Towson, Md. (1866)	Earle T. Hawkins	1,059 C	State
Marylhurst College; Marylhurst, Oreg. (1930)	Sister M. E. Clare	350 F	Catholic[4]
Marymount College; Salina, Kans. (1922)	Sister Etta Louise[17]	416 F[8]	Catholic
Marymount College; Tarrytown, N. Y. (1907)	Mother M. du Sacre Coeur	570 F	Catholic[4]
Maryville College; Maryville, Tenn. (1819)	Ralph W. Lloyd	633 C	Presbyterian[4]
Maryville College of the Sacred Heart; St. Louis, Mo. (1872)[50]	Mother M. O. Mouton	32 F	Catholic[4]
Marywood College; Scranton, Pa. (1915)	Sister M. Eugenia	669 F	Catholic[4]
Massachusetts, University of; Amherst, Mass. (1863)	Jean Paul Mather	3,899 C	State
Massachusetts Institute of Technology; Cambridge, Mass. (1861)	James R. Killian, Jr.	5,348 C	Private
Massachusetts Maritime Academy; Buzzards Bay, Mass. (1892)	J. D. Wilson[28]	178 M	State & Federal
Massachusetts School of Art; Boston, Mass. (1873)	Gordon L. Reynolds	417 C	State
Massachusetts State Teachers College; Boston, Mass. (1852)	William F. Looney	759 C	State
Massachusetts State Teachers College; Bridgewater, Mass. (1840)	Clement C. Maxwell	694 C	State
Massachusetts State Teachers College; Fitchburg, Mass. (1894)	Ralph F. Weston	491 C	State
Massachusetts State Teachers College; Framingham, Mass. (1839)	Martin F. O'Connor	553 F	State
Massachusetts State Teachers College; Lowell, Mass. (1894)	Daniel H. O'Leary	432 C	State
Massachusetts State Teachers College; North Adams, Mass. (1894)	Eugene L. Freel	140 C	State
Massachusetts State Teachers College; Salem, Mass. (1854)	Frederick A. Meier	601 C	State
Massachusetts State Teachers College; Westfield, Mass. (1839)	Edward J. Scanlon	265 C	State
Massachusetts State Teachers College; Worcester, Mass. (1871)	Eugene A. Sullivan	954 C	State
McMurry College; Abilene, Tex. (1920)	Harold G. Cooke	639 C	Methodist
McNeese State College; Lake Charles, La. (1939)[5]	Lether E. Frazar	998 C	State
McPherson College; McPherson, Kans. (1887)	D. W. Bittinger	357 C	Brethren
Medical Evangelists, College of; Los Angeles, Calif. (1910)	G. T. Anderson	667 C	7th Day Adven.
Memphis State College; Memphis, Tenn. (1912)	J. Millard Smith	2,925 C	State
Menlo College; Menlo Park, Calif. (1927)	William E. Kraft	312 M	Private
Mercer University; Macon, Ga. (1833)	George B. Connell	1,022 C	Baptist
Mercyhurst College; Erie, Pa. (1926)	Sister M. E. Taylor	236 F	Catholic[4]
Meredith College; Raleigh, N. C. (1891)	Carlyle Campbell	558 F	Baptist
Mercy College; Detroit, Mich. (1941)	Sister Mary Lucille	473 F[8]	Catholic[4]
Merrimack College; North Andover, Mass. (1947)	Rev. Vincent A. McQuade	570 C	Catholic
Miami, University of; Coral Gables, Fla. (1925)	Jay F. W. Pearson	9,138 C	Private
Miami University; Oxford, Ohio (1809)	John D. Millett	4,668 C	State
Michigan, University of; Ann Arbor, Mich. (1817)	Harlan Hatcher	22,066 C[11]	State
Michigan College of Mining & Technology; Houghton, Mich. (1885)	Grover C. Dillman	1,644 C	State
Michigan State College; East Lansing, Mich. (1855)[5]	John A. Hannah	13,382 C	State
Michigan State Normal College; Ypsilanti, Mich. (1849)	Eugene B. Elliott	2,783 C	State
Middle Tennessee State College; Murfreesboro, Tenn. (1909)	Q. M. Smith	1,865 C	State
Middlebury College; Middlebury, Vt. (1800)	Samuel S. Stratton	1,200 C	Private
Midland College; Fremont, Nebr. (1887)	Paul W. Dieckman	383 C	Lutheran
Midwestern University; Wichita Falls, Tex. (1922)	James B. Boren	1,211 C	City & Private
Millikin University; Decatur, Ill. (1901)	J. Walter Malone	883 C	Presbyterian[4]
Mills College; Oakland, Calif. (1852)	Lynn T. White, Jr.	538 F[8]	Private
Millsaps College; Jackson, Miss. (1892)	H. E. Finger, Jr.	724 C	Methodist
Milwaukee-Downer College; Milwaukee, Wis. (1851)	John B. Johnson, Jr.	150 F	Private

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Miner Teachers College; Washington, D. C. (1851) (N)	M. J. Whitehead	602 C	City
Minnesota, University of; Minneapolis, Minn. (1851)	J. L. Morrill	19,641 C	State
Minnesota State Teachers College; Bemidji, Minn. (1919)	C. R. Sattgast	600 C	State
Minnesota State Teachers College; Mankato, Minn. (1867)	C. L. Crawford	2,301 C	State
Minnesota State Teachers College; Moorhead, Minn. (1887)	O. W. Snarr	704 C	State
Minnesota State Teachers College; St. Cloud, Minn. (1869)	George F. Budd	2,078 C	State
Minnesota State Teachers College; Winona, Minn. (1858)	Nels Minne	585 C	State
Misericordia College; Dallas, Pa. (1923)	Sister Mary Gonzaga	555 F	Catholic[4]
Mississippi, University of; University, Miss. (1848)	J. D. Williams[14]	2,322 C	State
Mississippi College; Clinton, Miss. (1826)	D. M. Nelson	1,545 C	Baptist[4]
Mississippi Southern College; Hattiesburg, Miss. (1910)	R. A. McLemore[18]	2,920 C	State
Mississippi State College; State College, Miss. (1878)	Ben F. Hilbun	2,728 C	State
Mississippi State College for Women; Columbus, Miss. (1884)	Charles P. Hogarth	925 F	State
Mississippi Vocational College; Itta Bena, Miss. (1950) (N)	J. H. White	485 C	State
Missouri, University of; Columbia & Rolla, Mo. (1839)	Elmer Ellis[13]	9,126 C	State
School of Mines & Metallurgy; Rolla, Mo. (1870)	Curtis L. Wilson[17]	1,391 C	State
Missouri Valley College; Marshall, Mo. (1888)	M. Earle Collins	425 C	Presbyterian
Monmouth College; Monmouth, Ill. (1853)	Robert W. Gibson	566 C	Presbyterian
Montana School of Mines; Butte, Mont. (1893)	J. R. Van Pelt	312 C	State
Montana State College; Bozeman, Mont. (1893)	Roland R. Renne	2,222 C	State
Montana State University; Missoula, Mont. (1893)	Carl McFarland	2,341 C	State
Moravian College; Bethlehem, Pa. (1742)	Raymond S. Haupert	591 C	Moravian[4]
Morehead State College; Morehead, Ky. (1923)	Adron Doran	995 C	State
Morehouse College. See Atlanta University System			
Morgan State College; Baltimore, Md. (1867) (N)	Martin D. Jenkins	1,781 C	State
Morningside College; Sioux City, Iowa (1894)	Earl A. Roadman	958 C	Methodist
Morris Brown College; Atlanta, Ga. (1881) (N)	John H. Lewis	663 C	A. M. E.
Mount Angel Seminary; St. Benedict, Oreg. (1889)	Rt. Rev. Damian Jentges	81 M	Catholic[4]
Mount Holyoke College; South Hadley, Mass. (1837)	Roswell G. Ham	1,242 F	Private
Mount Mary College; Milwaukee, Wis. (1913)	Sister Mary J. Francis	560 F	Catholic
Mount Mercy College; Pittsburgh, Pa. (1929)	Mother Margaret Mary	354 F	Private
Mount St. Agnes College; Baltimore, Md. (1890)	Sister M. Cleophas	219 F	Catholic
Mount St. Joseph-on-the-Ohio, College of; Same (1920)	Mother M. Romana	461 F	Catholic[4]
Mount St. Joseph Teachers College; Buffalo, N. Y. (1937)	Sister M. Hubert	400 F	Private
Mount St. Mary College; Hooksett, N. H. (1934)	Sister M. Mauritia	134 F	Catholic[4]
Mount St. Mary's College; Emmitsburg, Md. (1808)	Rt. Rev. John L. Sheridan	463 M	Catholic[4]
Mount St. Mary's College; Los Angeles, Calif. (1925)	Sister Agnes Marie	487 F	Catholic[4]
Mount St. Scholastica College; Atchison, Kans. (1863)	Mother M. A. Schroll	416 F	Catholic[4]
Mount St. Vincent, College of; New York, N. Y. (1847)	Sister Catharine Marie[17]	470 F	Catholic[4]
Mount Union College; Alliance, Ohio (1846)	Carl C. Bracy	642 C	Methodist[4]
Muhlenberg College; Allentown, Pa. (1848)	J. Conrad Seegers	716 M	Lutheran
Mundelein College for Women; Chicago, Ill. (1930)	Sister Mary John Michael	868 F	Catholic[4]
Murray State College; Murray, Ky. (1922)	Ralph H. Woods	1,531 C	State
Muskingum College; New Concord, Ohio (1837)	Robert N. Montgomery	780 C	Presbyterian
National College of Education; Evanston, Ill. (1886)	K. Richard Johnson	540 C	Private
Nazareth College; Louisville, Ky. (1920)	Sister M. Gertrude	750 F	Catholic[4]
Nazareth College; Nazareth, Mich. (1897)	Sister M. Kathleen	250 F	Catholic[4]
Nazareth College; Rochester, N. Y. (1924)	Rev. Mother M. Helene	437 F	Catholic
Nebraska, University of; Lincoln & Omaha, Nebr. (1869)[11]	Clifford Hardin[14]	7,197 C	State
Nebraska State Teachers College; Chadron, Nebr. (1911)	Burton L. Kline	360 C	State
Nebraska State Teachers College; Kearney, Nebr. (1905)	Herbert L. Cushing	1,028 C	State
Nebraska State Teachers College; Peru, Nebr. (1867)	Neal S. Gomon	549 C	State
Nebraska State Teachers College; Wayne, Nebr. (1910)	John D. Rice	744 C	State
Nebraska Wesleyan University; Lincoln, Nebr. (1887)	A. Leland Forrest[14]	753 C	Methodist
Nevada, University of; Reno, Nev. (1874)	Minard W. Stout	1,417 C	State
New Bedford Inst. of Textiles & Tech.; New Bedford, Mass. (1898)	John E. Foster	304 C	State
New Church, Academy of the; Bryn Athyn, Pa. (1876)	George de Charms	22 C	([25])
New England Conservatory of Music; Boston, Mass. (1867)	Harrison Keller	339 C	Private
New Hampshire, University of; Durham, N. H. (1866)	Edward D. Eddy, Jr.[13]	2,761 C	State
New Hampshire State Teachers College; Keene, N. H. (1909)	Lloyd P. Young	505 C	State
New Hampshire State Teachers College; Plymouth, N. H. (1871)	Harold E. Hyde	316 C	State
New Jersey College for Women. See Douglass College			
New Jersey State Teachers College; Glassboro, N. J. (1923)	Thomas E. Robinson	418 C	State
New Jersey State Teachers College; Jersey City, N. J. (1929)	M. B. Gilligan	460 C	State
New Jersey State Teachers College; Newark, N. J. (1913)[27]	Eugene G. Wilkins	632 C	State
New Jersey State Teachers College; Paterson, N. J. (1923)[27]	Marion E. Shea	676 C	State
New Jersey State Teachers College; Trenton, N. J. (1855)	Roscoe L. West	846 C	State
New Jersey State Teachers College; Upper Montclair, N. J. (1908)	E. DeAlton Partridge	1,684 C	State
New Mexico, University of; Albuquerque, N. Mex. (1889)	Tom L. Popejoy	3,834 C	State
New Mexico College of A & M Arts; State College, N. Mex. (1889)	Roger B. Corbett	1,972 C	State
New Mexico Highlands University; Las Vegas, N. Mex. (1893)	Thomas C. Donnelly	645 C	State

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
New Mexico Institute of Mining and Tech.; Socorro, N. Mex. (1889)	E. J. Workman	48 C	State
New Mexico Military Institute; Roswell, N. Mex. (1893)	Col. Charles F. Ward[28]	232 M	State
New Mexico Western College; Silver City, N. Mex. (1893)	J. Cloyd Miller	501 C	State
New Rochelle, College of; New Rochelle, N. Y. (1904)	Mother Dorothea Dunkerley	844 F	Catholic[4]
New York, College of the City of:			
Brooklyn College; Brooklyn, N. Y. (1930)	Harry D. Gideonse	8,897 C	City
City College; New York, N. Y. (1847)	Buell G. Gallagher	18,988 C	City
Hunter College; New York, N. Y. (1870)	George N. Shuster	12,255 F[29]	City
Queens College; Flushing, N. Y. (1937)	John J. Theobald	3,894 C	City
New York, State University of; Albany, N. Y. (1948)	William S. Carlson	26,423 C	State
Agricultural & Technical Institute; Alfred, N. Y. (1908)	Walter C. Hinkle[44]	1,117 C	State
Agricultural & Technical Institute; Canton, N. Y. (1906)	Albert E. French[47]	404 C	State
Agricultural & Technical Institute; Cobleskill, N. Y. (1911)	Ray L. Wheeler[47]	272 C	State
Agricultural & Technical Institute; Delhi, N. Y. (1915)	William R. Kunsela[47]	208 C	State
Agricultural & Technical Institute; Farmingdale, N. Y. (1916)	Halsey B. Knapp[47]	3,784 C	State
Agricultural & Technical Institute; Morrisville, N. Y. (1908)	Malcolm B. Galbreath[47]	465 C	State
College of Agriculture at Cornell U.; Ithaca, N. Y. (1904)	William I. Myers[17]	1,985 C	State
College of Ceramics at Alfred U.; Alfred, N. Y. (1900)	John F. McMahon[17]	366 C	State
College of Forestry; Syracuse, N. Y. (1911)	Hardy L. Shirley[17]	631 M[6]	State
College of Home Economics at Cornell U.; Ithaca, N. Y. (1900)	Helen G. Canoyer[17]	695 F[8]	State
College of Medicine at New York City; Brooklyn, N. Y. (1857)	Howard W. Potter[48]	644 C	State
College of Medicine at Syracuse; Syracuse, N. Y. (1834)	William R. Willard[17]	490 C	State
Harpur College; Endicott, N. Y. (1946)	Glenn G. Bartle	755 C	State
Maritime College at Ft. Schuyler; New York, N. Y. (1874)	Vice Adm. C. T. Durgin	481 M	State
School of Ind. & Labor Rel. at Cornell U.; Ithaca, N. Y. (1945)	M. P. Catherwood[17]	358 C	State
Teachers College; Albany, N. Y. (1844)	Evan R. Collins	2,110 C	State
Teachers College; Brockport, N. Y. (1841)	Donald M. Tower	1,059 C	State
Teachers College; Buffalo, N. Y. (1869)	Harvey M. Rice	2,581 C	State
Teachers College; Cortland, N. Y. (1863)	Donnal V. Smith	1,710 C	State
Teachers College; Fredonia, N. Y. (1867)	Harry W. Porter	732 C	State
Teachers College; Geneseo, N. Y. (1867)	Francis J. Moench	598 C	State
Teachers College; New Paltz, N. Y. (1886)	William J. Haggerty	1,047 C	State
Teachers College; Oneonta, N. Y. (1887)	Royal F. Netzer	759 C	State
Teachers College; Oswego, N. Y. (1861)	Foster S. Brown	1,298 C	State
Teachers College; Plattsburgh, N. Y. (1889)	George W. Angell	891 C	State
Teachers College; Potsdam, N. Y. (1889)	Frederick W. Crumb	768 C	State
Veterinary College at Cornell U.; Ithaca, N. Y. (1894)	William A. Hagan[17]	215 C	State
New York University; New York, N. Y. (1831)	Henry T. Heald[14]	35,692 C[30]	Private
Newark College of Engineering; Newark, N. J. (1881)	Robert W. Van Houten	3,009 C	City & State
Newberry College; Newberry, S. C. (1856)	C. A. Kaufmann[18]	390 C	Lutheran
Newcomb Memorial College; New Orleans, La. (1886)[31]	John R. Hubbard[17]	718 F	Private
Niagara University; Niagara University, N. Y. (1856)	V. Rev. Francis L. Meade	1,094 C	Catholic
North Carolina, Agr. & Tech. College of; Greensboro, (1891) (N)	F. D. Bluford	2,951 C	State
North Carolina, University of; Chapel Hill, N. C.	Gordon Gray	.....	State
College of Agriculture & Engineering; Raleigh, N. C. (1889)[5]	Carey H. Bostian[14]	3,839 C	State
University of N. C. at Chapel Hill; Chapel Hill, N. C. (1789)	Robert B. House[14]	5,927 C	State
Woman's College; Greensboro, N. C. (1891)[5]	Edward K. Graham[14]	2,375 F[8]	State
North Carolina College; Durham, N. C. (1910) (N)	Alfonso Elder	1,544 C	State
North Carolina State Teachers Coll.; Elizabeth City, N. C. (1892)(N)	S. D. Williams	491 C	State
North Carolina State Teachers Coll.; Fayetteville, N. C. (1877)(N)	J. W. Seabrook	682 C	State
North Carolina State Teachers Coll.; Winston-Salem (1892)(N)	Francis L. Atkins	749 C	State
North Central College; Naperville, Ill. (1861)[5]	C. Harve Geiger	567 C	Evan. Un. Breth.[4]
North Dakota, University of; Grand Forks, N. Dak. (1883)	George W. Starcher	2,522 C	State
North Dakota Agricultural College; Fargo, N. Dak. (1889)	Fred S. Hultz	1,800 C	State
North Dakota State Normal & Ind. College; Ellendale (1889)	T. S. Jenkins	124 C	State
North Dakota State Teachers College; Dickinson, N. Dak. (1917)	Charles E. Scott	357 C	State
North Dakota State Teachers College; Mayville, N. Dak. (1889)	O. A. DeLong	191 C	State
North Dakota State Teachers College; Minot, N. Dak. (1913)	C. P. Lura	744 C	State
North Dakota State Teachers College; Valley City, N. Dak. (1890)	R. L. Lokken	435 C	State
North Georgia College; Dahlonega, Ga. (1873)	Merritt E. Hoag	494 C	State
North Texas State College; Denton, Tex. (1890)	J. C. Matthews	4,864 C	State
Northeast Missouri State Teachers College; Kirksville, Mo. (1867)	Walter H. Ryle	1,343 C	State
Northeastern State College; Tahlequah, Okla. (1909)	Harrell E. Garrison	1,290 C	State
Northeastern University; Boston, Mass. (1898)	Carl S. Ell	12,679 C	Private
Northern Baptist Theological Seminary; Chicago, Ill. (1913)	Charles W. Koller	357 C	Baptist[4]
Northern Illinois State Teachers College; DeKalb, Ill. (1895)	Leslie A. Holmes	2,570 C	State
Northern Michigan College of Education; Marquette, Mich. (1899)	H. A. Tape	719 C	State
Northern Montana College; Havre, Mont. (1929)	L. O. Brockmann	373 C	State
Northern State Teachers College; Aberdeen, S. Dak. (1901)	Warren C. Lovinger	760 C	State
Northwest Missouri State College; Maryville, Mo. (1905)	J. W. Jones	943 C	State
Northwest Nazarene College; Nampa, Idaho (1913)	John E. Riley	373 C	Nazarene

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Northwestern State College; Alva, Okla. (1898)	Luther D. Brown	603 C	State
Northwestern State College of Louisiana; Natchitoches, La. (1884)	John S. Kyser	1,738 C	State
Northwestern University; Evanston & Chicago, Ill. (1851)	J. Roscoe Miller	16,209 C	Private
Norwich University; Northfield, Vt. (1819)	Maj. Gen. E. N. Harmon	700 M	Private
Notre Dame College of Staten Island; Staten Island, N. Y. (1931)	Mother Saint Egbert	250 F	Catholic[4]
Notre Dame, University of; Notre Dame, Ind. (1842)	Rev. Theodore M. Hesburgh	5,443 M	Catholic[4]
Notre Dame College; Cleveland, Ohio (1922)	Mother M. A. Langenderfer	265 F	Catholic[4]
Notre Dame of Maryland, College of; Baltimore, Md. (1895)	Sister Margaret Mary	467 F	Catholic[4]
Notre Dame Seminary; New Orleans, La. (1923)	Rev. Thomas U. Bolduc[16]	18 M	Catholic
Oberlin College; Oberlin, Ohio (1833)	William E. Stevenson	1,915 C	Private[10]
Occidental College; Los Angeles, Calif. (1887)	Arthur G. Coons	1,245 C	Presbyterian[4]
Oglethorpe University; Atlanta, Ga. (1835)	George C. Seward[18]	225 C	Private
Ohio State University; Columbus, Ohio (1870)	Howard L. Bevis	17,164 C	State
Ohio University; Athens, Ohio (1804)	John C. Baker	5,238 C	State
Ohio Wesleyan University; Delaware, Ohio (1842)	Arthur S. Flemming	1,889 C	Methodist[4]
Oklahoma, University of; Norman, Okla. (1890)	George L. Cross	9,471 C	State
Oklahoma A & M College; Stillwater, Okla. (1891)	Oliver S. Willham	7,963 C	State
Oklahoma Baptist University; Shawnee, Okla. (1910)	John W. Raley	1,115 C	Baptist
Oklahoma City University; Oklanoma City, Okla. (1904)	Clustor Q. Smith	3,062 C	Methodist
Oklahoma College for Women; Chickasha, Okla. (1908)	Dan Procter	792 F	State
Omaha, Municipal University of; Omaha, Nebr. (1908)	Milo Bail	1,891 C	City
Oregon, University of; Eugene, Oreg. (1872)	O. Meredith Wilson	4,100 C	State
Oregon College of Education; Monmouth, Oreg. (1882)	Roy E. Lieuallen[43]	686 C	State
Oregon State College; Corvallis, Oreg. (1868)	A. L. Strand	4,785 C	State & Federal
Ottawa University; Ottawa, Kans. (1865)	Andrew B. Martin	414 C	Baptist[4]
Otterbein College; Westerville, Ohio (1847)	J. Gordon Howard	710 C	Evan. U. Breth.[4]
Ouachita Baptist College; Arkadelphia, Ark. (1886)	Ralph A. Phelps, Jr.	579 C	Baptist
Our Lady of the Elms, College of; Chicopee, Mass. (1928)	Most Rev. C. J. Weldon	360 F	Private
Our Lady of the Lake College; San Antonio, Tex. (1896)	John L. McMahon	520 F[8]	Catholic[4]
Ozarks, College of the; Clarksville, Ark. (1834)	Winslow S. Drummond	228 C	Presbyterian
Pacific, College of the; Stockton, Calif. (1851)	Robert E. Burns	1,172 C	Methodist[4]
Pacific Lutheran College; Parkland, Wash. (1894)	S. C. Eastvold	1,369 C	Lutheran
Pacific Union College; Angwin, Calif. (1882)	H. L. Sonnenberg	838 C	7th Day Adven.
Pacific University; Forest Grove, Oreg. (1849)	Charles J. Armstrong	489 C	Congregational[4]
Paine College; Augusta, Ga. (1883) (N)	E. C. Peters	291 C	Meth.
Palos Verdes College; Rolling Hills, Calif. (1946)	John A. Howard	40 C	Private
Panhandle A & M College; Goodwell, Okla. (1909)	Marvin McKee	550 C	State
Park College; Parkville, Mo. (1875)	J. L. Zwingle	316 C	Presbyterian[4]
Parsons College; Fairfield, Iowa (1875)	Millard G. Roberts	237 C	Presbyterian
Pasadena College; Pasadena, Calif. (1902)	W. T. Purkiser	742 C	Nazarene
Pembroke College; Providence, R. I. (1891)[12]	Nancy D. Lewis[17]	805 F	Private
Pembroke State College; Pembroke, N. C. (1887)	R. D. Wellons	182 C	State
Pennsylvania, University of; Philadelphia, Pa. (1740)	Gaylord P. Harnwell	14,652 C	Private
Pennsylvania College for Women; Pittsburgh, Pa. (1869)	Paul R. Anderson	412 F	Private
Pennsylvania Military College; Chester, Pa. (1821)	Edward E. MacMorland	550 M	Private
Pennsylvania State College of Optometry; Philadelphia, Pa. (1919)	Albert Fitch	224 C	Private
Pennsylvania State Teachers College; Bloomsburg, Pa. (1839)	Harvey A. Andruss	851 C	State
Pennsylvania State Teachers College; California, Pa. (1852)	C. Herman Grose	772 C	State
Pennsylvania State Teachers College; Cheyney, Pa. (1837)	James H. Duckrey	476 C	State
Pennsylvania State Teachers College; Clarion, Pa. (1867)	Paul G. Chandler	507 C	State
Pennsylvania State Teachers College; Edinboro, Pa. (1856)	Thomas R. Miller	432 C	State
Pennsylvania State Teachers College; East Stroudsburg, Pa. (1893)	Joseph F. Noonan	829 C	State
Pennsylvania State Teachers College; Indiana, Pa. (1875)	Willis E. Pratt	1,611 C	State
Pennsylvania State Teachers College; Kutztown, Pa. (1866)	Q. A. W. Rohrbach	762 C	State
Pennsylvania State Teachers College; Lock Haven, Pa. (1870)	Richard T. Parsons	589 C	State
Pennsylvania State Teachers College; Mansfield, Pa. (1862)	James G. Morgan	531 C	State
Pennsylvania State Teachers College; Millersville, Pa. (1855)	D. L. Biemesderfer	833 C	State
Pennsylvania State Teachers College; Shippensburg, Pa. (1871)	Harry L. Kriner	703 C	State
Pennsylvania State Teachers College; Slippery Rock, Pa. (1889)	Dale W. Houk	768 C	State
Pennsylvania State Teachers College; West Chester, Pa. (1871)	Charles S. Swope	1,868 C	State
Pennsylvania State University; University Park, Pa. (1855)	Milton S. Eisenhower	12,371 C	State
Philander Smith College; Little Rock, Ark. (1868) (N)	M. LaFayette Harris	561 C	Methodist
Phillips University; Enid, Okla. (1906)	Eugene S. Briggs	1,000 C	Disc. of Christ
Pittsburgh, University of; Pittsburgh, Pa. (1787)	R. H. Fitzgerald[14]	12,800 C	Private
Pomona College; Claremont, Calif. (1887)	E. Wilson Lyon	945 C	Private
Portland, University of; Portland, Oreg. (1901)	Rev. Michael J. Gavin	1,046 C	Catholic[4]
Prairie View A & M College; Prairie View, Tex. (1876) (N)	E. B. Evans	2,419 C	State
Pratt Institute; Brooklyn, N. Y. (1887)	Francis H. Horn	1,527 C	Private
Presbyterian College; Clinton, S. C. (1880)	Marshall W. Brown	460 C	Presbyterian
Princeton University; Princeton, N. J. (1746)	Harold W. Dodds	3,496 M	Private
Principia College; Elsah, Ill. (1898)	William E. Morgan	450 C	Private[33]

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Providence College; Providence, R. I. (1917)	V. Rev. Robert J. Slavin	1,400 M	Catholic
Puerto Rico, Catholic University of; Ponce, P. R. (1948)	Rev. William Ferree[16]	1,779 C	Catholic[4]
Puerto Rico, Polytechnic Institute of; San Germán, P. R. (1912)	Edward G. Seel	627 C	Presbyterian[4]
Puerto Rico, University of; Rio Piedras, P. R. (1903)	Jaime Benitez[14]	11,855 C	Commonwealth
Puget Sound, College of; Tacoma, Wash. (1888)	R. Franklin Thompson	1,323 C	Methodist[4]
Purdue University; Lafayette, Ind. (1869)	Frederick L. Hovde	10,173 C	State
Queens College; Charlotte, N. C. (1857)	Edwin R. Walker	500 F	Presbyterian
Queens College (NYC). See New York, College of the City of			
Quincy College; Quincy, Ill. (1860)	Rev. Julian Woods	83 C	Catholic
Radcliffe College; Cambridge, Mass. (1879)[34]	Wilbur K. Jordan	1,411 F	Private
Radford College; Radford, Va. (1913)[35]	Charles K. Martin, Jr.	894 F	State
Randolph-Macon College; Ashland, Va. (1830)	J. Earl Moreland	474 M[6]	Methodist[4]
Randolph-Macon Woman's College; Lynchburg, Va. (1891)	W. F. Quillian, Jr.	647 F	Methodist[4]
Redlands, University of; Redlands, Calif. (1907)	George H. Armacost	921 C	Baptist[4]
Reed College; Portland, Oreg. (1911)	Frank L. Griffin	617 C	Private
Regis College; Denver, Colo. (1877)	V. Rev. Richard F. Ryan	731 M[22]	Catholic
Regis College; Weston, Mass. (1927)	Sister Mary Alice	570 F	Catholic[4]
Rensselaer Polytechnic Institute; Troy, N. Y. (1824)	Livingston W. Houston	2,809 M[6]	Private
Rhode Island College of Education; Providence, R. I. (1854)	William C. Gaige	586 C	State
Rhode Island School of Design; Providence, R. I. (1877)	Max W. Sullivan	641 C	Private
Rhode Island, University of; Kingston, R. I. (1892)	Carl R. Woodward	2,039 C	State
Rice Institute; Houston, Tex. (1912)	William V. Houston	1,600 C	Private
Richmond, University of; Richmond, Va. (1830)	George M. Modlin	1,628 Co[36]	Baptist[4]
Ricks College; Rexburg, Idaho (1888)	John L. Clarke	608 C	Latter-day Saints
Ripon College; Ripon, Wis. (1851)	Fred O. Pinkham	501 C	Private
Rivier College; Nashua, N. H. (1933)	Sister Marie Carmella	204 F[8]	Catholic[4]
Roanoke College; Salem, Va. (1842)	H. Sherman Oberly	462 C	Lutheran[4]
Rochester, University of; Rochester, N. Y. (1850)[5]	Cornelis W. de Kiewiet	3,023 C	Private
Rockford College; Rockford, Ill. (1847)	Leland H. Carlson	203 F[37]	Cong.-Chr.[4]
Rockhurst College, Kansas City, Mo. (1910)	V. Rev. M. Van Ackeren	1,200 M[22]	Catholic
Rocky Mountain College; Billings, Mont. (1947)[5]	Herbert W. Hines	230 C	(38)
Rollins College; Winter Park, Fla. (1885)	Hugh F. McKean	562 C	Private
Roosevelt University; Chicago, Ill. (1945)	Edward J. Sparling	3,375 C	Private
Rosary College; River Forest, Ill. (1848)	Sister M. Timothea	690 F[8]	Catholic[4]
Rose Polytechnic Institute; Terre Haute, Ind. (1874)	F. L. Wilkinson, Jr.	370 M	Private
Rosemont College of Holy Child Jesus; Rosemont, Pa. (1921)	Mother Mary Chrysostom	395 F	Catholic[4]
Russell Sage College; Troy, N. Y. (1916)	Lewis A. Froman	1,569 F[46]	Private
Rust College; Holly Springs, Miss. (1866) (N)	L. M. McCoy	745 C	Methodist
Rutgers University; New Brunswick, N. J. (1766)	Lewis W. Jones	12,359 Co[36]	State & private
Sacramento State College; Sacramento, Calif. (1947)	Guy A. West	3,521 C	State
Sacred Heart, College of the; Santurce, P. R. (1880)	Mother Raquel Perez	95 F	Catholic[4]
St. Ambrose College; Davenport, Iowa (1885)[51]	Msgr. Ambrose J. Burke	828 M[6]	Catholic
St. Anselm's College; Manchester, N. H. (1889)	Rt. Rev. B. C. Dolan	628 M[6]	Catholic
St. Augustine's College; Raleigh, N. C. (1867) (N)	James A. Boyer[13]	446 C	Episcopal
St. Benedict, College of; St. Joseph, Minn. (1913)	Mother Richarda Peters	303 F[8]	Catholic[4]
St. Benedict's College; Atchison, Kans. (1859)	Rt. Rev. Cuthbert McDonald	526 M	Catholic[4]
St. Bernard College; St. Bernard, Ala. (1892)	Rt. Rev. Bede Luibel	261 M	Catholic[4]
St. Bernardine of Siena College; Loudonville, N. Y. (1937)	V. Rev. B. J. Campbell	1,340 M[6]	Catholic
St. Bonaventure University; Allegany, N. Y. (1856)	V. Rev. Juvenal Lalor	1,338 C	Catholic[4]
St. Catherine, College of; St. Paul, Minn. (1905)	Sister Antonine	855 F	Catholic[4]
St. Edward's Seminary; Kenmore, Wash. (1931)	V. Rev. John R. Sullivan	146 M	Catholic
St. Elizabeth, College of; Convent Station, N. J. (899)	Sister H. M. Mahoney	448 F	Catholic[4]
St. Francis, College of; Joliet, Ill. (1925)	Sister Mary Elvira	416 F	Catholic[4]
St. Francis College; Loretto, Pa. (1847)	Rev. Xavier Crowley	510 C	Catholic[4]
St. Francis Xavier College for Women; Chicago, Ill. (1912)	Mother Mary Huberta	300 F	Catholic[4]
St. John's College; Annapolis, Md. (1696)	Richard D. Weigle	139 C	Private
St. John's College; Camarillo, Calif. (1939)	V. Rev. J. W. Richardson	20 M	Catholic
St. John's University; Brooklyn, N. Y. (1870)	V. Rev. John A. Flynn	6,400 C	Catholic[4]
St. John's University; Collegeville, Minn. (1857)	Rt. Rev. Dworschak	954 M	Catholic
St. Joseph College; Emmitsburg, Md. (1809)	Sister Mary Agnes	258 F	Catholic[4]
St. Joseph College; West Hartford, Conn. (1932)	Mother M. Ethelreda	350 F	Catholic
St. Joseph's College; Collegeville, Ind. (1889)	V. Rev. R. H. Gross	610 M	Catholic
St. Joseph's College; Philadelphia, Pa. (1851)	V. Rev. E. G. Jacklin	1,589 M[6]	Catholic[4]
St. Joseph's College for Women; Brooklyn, N. Y. (1916)	Rt. Rev. W. T. Dillon	280 F	Catholic[4]
St. Lawrence University; Canton, N. Y. (1856)	Eugene G. Bewkes	1,188 C	Private
St. Louis University; St. Louis, Mo. (1818)[50]	V. Rev. Paul C. Reinert	8,154 C	Catholic[4]
St. Martin's College; Olympia, Wash. (1895)	Rt. Rev. Raphael Heider	186 M[6]	Catholic
St. Mary College; Xavier, Kans. (1923)	Arthur M. Murphy	425 F	Catholic
St. Mary of the Springs, College of; Columbus, Ohio (1911)	Sister M. Angelita	283 F[8]	Catholic[4]
St. Mary-of-the-Wasatch, College of; Salt Lake City, Utah (1926)	Sister Marie de Lourdes	115 F	Catholic[4]
St. Mary-of-the-Woods Coll.; St. Mary-of-the-Woods, Ind. (1840)	Sister Francis Joseph	313 F	Catholic[4]

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
St. Mary's College; Notre Dame, Ind. (1844)	Sister M. Madeleva	784 F	Catholic[4]
St. Mary's College; St. Mary's College, Calif. (1863)	Brother W. Thomas	391 M	Catholic[4]
St. Mary's College; Winona, Minn. (1913)	Brother J. Ambrose	635 M	Catholic[4]
St. Mary's Dominican College; New Orleans, La. (1910)	Sister Mary Louise	320 F	Catholic[4]
St. Mary's Seminary & University; Baltimore, Md. (1791)	V. Rev. L. P. McDonald	800 M	Catholic
St. Mary's University; San Antonio, Tex. (1852)	V. Rev. W. J. Buehler	1,435 C	Catholic
St. Michael's College; Winooski Park, Vt. (1904)	V. Rev. F. E. Moriarty	669 M[6]	Catholic[4]
St. Norbert College; De Pere, Wis. (1898)	Rt. Rev. S. M. Killeen	588 C	Catholic
St. Olaf College; Northfield, Minn. (1874)	Clemens M. Granskou	1,647 C	Lutheran[4]
St. Patrick's Seminary; Menlo Park, Calif. (1898)	Rev. Thomas C. Mulligan	214 M	Catholic
St. Paul Seminary; St. Paul, Minn. (1896)	Rev. Rudolph G. Bandas	357 M	Catholic
St. Paul's Polytechnic Institute; Lawrenceville, Va. (1888) (N)[5]	Earl H. McClenney	358 C	Episcopal[4]
St. Peter's College; Jersey City, N. J. (1872)	Rev. James J. Shanahan	1,504 M[6]	Catholic
St. Rose, College of; Albany, N. Y. (1920)	Sister C. Francis	778 F[8]	Catholic[4]
St. Scholastica, College of; Duluth, Minn. (1912)	Mother Martina Hughes	426 F	Catholic
St. Teresa, College of; Kansas City, Mo. (1917)	Sister M. B. O'Neill	435 F[8]	Catholic[4]
St. Teresa, College of; Winona, Minn. (1907)	Sister M. C. Bowe	571 F	Catholic[4]
St. Thomas, College of; St. Paul, Minn. (1885)	V. Rev. V. J. Flynn	1,151 M	Catholic[4]
St. Vincent College; Latrobe, Pa. (1846)	Rt. Rev. D. O. Strittmatter	664 M	Catholic[4]
Salem College; Winston-Salem, N. C. (1772)	Dale H. Gramley	331 F	Moravian
Sam Houston State Teachers College; Huntsville, Tex. (1879)	Harmon Lowman	1,916 C	State
San Diego State College; San Diego, Calif. (1897)	Malcolm A. Love	4,524 C	State
San Francisco, University of; San Francisco, Calif. (1855)	Rev. J. F. X. Connolly	2,547 M[6]	Catholic
San Francisco College for Women; San Francisco, Calif. (1930)	Mother Marion Kent	400 F	Catholic
San Francisco State College; San Francisco, Calif. (1899)	J. Paul Leonard	7,553 C	State
San Jose State College; San Jose, Calif. (1857)	John T. Wahlquist	7,102 C	State
Santa Clara, University of; Santa Clara, Calif. (1851)	Rev. Herman J. Hauck	1,148 M	Catholic[4]
Sarah Lawrence College; Bronxville, N. Y. (1926)	Harold Taylor	360 F[8]	Private
Savannah State College; Savannah, Ga. (1890) (N)	W. K. Payne	896 C	State
Scarritt College for Christian Workers; Nashville, Tenn. (1892)	Hugh C. Stuntz	133 C	Methodist
Scranton, University of; Scranton, Pa. (1888)	V. Rev. John J. Long	1,819 M[6]	Catholic[4]
Scripps College; Claremont, Calif. (1926)	Frederick Hard	223 F	Private
Seattle Pacific College; Seattle, Wash. (1891)	C. Hoyt Watson	911 C	Methodist
Seattle University; Seattle, Wash. (1891)	V. Rev. A. A. Lemieux	2,575 C	Catholic[4]
Seneca, Colleges of the; Geneva, N. Y.[19]	Alan W. Brown	847 Co	Private
Seton Hall University; South Orange, N. J. (1856)	Rt. Rev. John L. McNulty	6,578 C	Catholic
Seton Hill College; Greensburg, Pa. (1883)	Rev. William G. Ryan	467 F	Catholic[4]
Shaw University; Raleigh, N. C. (1865) (N)	William R. Strassner	497 C	Baptist[4]
Shepherd State College; Shepherdstown, W. Va. (1871)	Oliver S. Ikenberry	612 C	State
Shorter College; Rome, Ga. (1873)	George A. Christenberry	202 F[8]	Baptist[4]
Siena Heights College; Adrian, Mich. (1919)	Rev. Mother Mary Gerald	365 F	Catholic[4]
Simmons College; Boston, Mass. (1899)	Bancroft Beatley	1,301 F[8]	Private
Simpson College; Indianola, Iowa (1860)	William E. Kerstetter	511 C	Methodist
Skidmore College; Saratoga Springs, N. Y. (1911)	Henry T. Moore	1,056 F[8]	Private
Smith College; Northampton, Mass. (1871)	Benjamin F. Wright	2,242 F	Private
South, University of the; Sewanee, Tenn. (1857)	Edward McCrady	454 M	Episcopal
South Carolina, Medical College of; Charleston, S. C. (1823)	Kenneth M. Lynch	582 C	State
South Carolina, University of; Columbia, S. C. (1801)	Donald Russell	3,656 C	State
South Carolina State College; Orangeburg, S. C. (1896) (N)	Benner C. Turner	1,227 C	State
South Dakota, University of; Vermillion, S. Dak. (1882)	I. D. Weeks	1,608 C	State
South Dakota School of Mines & Tech.; Rapid City (1885)	F. L. Partlo	639 C	State
South Dakota State College; Brookings, S. Dak. (1881)	John W. Headley	1,970 C	State
Southeast Missouri State College; Cape Girardeau, Mo. (1873)	W. W. Parker	1,254 C	State
Southeastern Louisiana College; Hammond, La. (1925)	L. H. Dyson	1,227 C	State
Southeastern State College; Durant, Okla. (1909)	A. E. Shearer	1,270 C	State
Southern California, University of; Los Angeles, Calif. (1880)	Fred D. Fagg, Jr.	16,280 C	Private
Southern Illinois University; Carbondale, Ill. (1869)	Delyte W. Morris	4,230 C	State
Southern Methodist University; Dallas, Tex. (1911)	Willis M. Tate	4,398 C	Methodist
Southern Missionary College; Collegedale, Tenn. (1893)	Kenneth A. Wright	402 C	7th Day Advan.
Southern Oregon College of Education; Ashland, Oreg. (1926)	Elmo N. Stevenson	600 C	State
Southern State Teachers College; Springfield, S. Dak. (1897)	W. W. Ludeman	325 C	State
Southern University & A & M College; Baton Rouge, La. (1914) (N)	Felton G. Clark	3,148 C	State
Southwest Missouri State College; Springfield, Mo. (1906)	Roy Ellis	1,803 C	State
Southwest Texas State Teachers College; San Marcos, Tex. (1899)	J. G. Flowers	1,790 C	State
Southwestern at Memphis; Memphis, Tenn. (1848)	Peyton N. Rhodes	520 C	Presbyterian
Southwestern College; Winfield, Kans. (1885)	C. Orville Strohl	409 C	Methodist
Southwestern Louisiana Institute; Lafayette, La. (1900)	Joel L. Fletcher	3,138 C	State
Southwestern State College; Weatherford, Okla. (1903)	R. H. Burton	1,206 C	State
Southwestern University; Georgetown, Tex. (1840)	William C. Finch	519 C	Methodist
Spelman College. See Atlanta University System			
Spring Hill College; Spring Hill, Ala. (1830)	V. Rev. A. C. Smith	1,040 C	Catholic

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Springfield College; Springfield, Mass. (1885)	Donald C. Stone	1,285 C	Private
Stanford University; Stanford, Calif. (1885)	J. E. W. Sterling	6,802 C	Private
Stephen F. Austin State College; Nacogdoches, Tex. (1923)	Paul L. Boynton	1,344 C	State
Stetson University; DeLand, Fla. (1883)	J. Ollie Edmunds	1,193 C	Baptist[4]
Stevens Institute of Technology; Hoboken, N. J. (1870)	Jess H. Davis	1,730 M	Private
Stillman College; Tuscaloosa, Ala. (1876) (N)	Samuel B. Hay	296 C	Presbyterian
Stout Institute; Menomonie, Wis. (1903)	Verne C. Fryklund	796 C	State
Suffolk University; Boston, Mass. (1906)	Robert J. Munce	967 C	Private
Sul Ross State College; Alpine, Tex. (1921)	Bryan Wildenthal	101 C	State
Susquehanna University; Selinsgrove, Pa. (1858)	G. Morris Smith	404 C	Lutheran[4]
Swarthmore College; Swarthmore, Pa. (1864)	Courtney Smith	925 C	Private
Sweet Briar College; Sweet Briar, Va. (1901)	Anne G. Pannell	468 F	Private
Syracuse University; Syracuse, N. Y. (1870)	William P. Tolley[14]	8,688 C	Methodist[4]
Talladega College; Talladega, Ala. (1867) (N)	Arthur D. Gray	301 C	Congregational[4]
Tampa, University of; Tampa, Fla. (1931)	Ellwood C. Nance	1,161 C	Private
Tarkio College; Tarkio, Mo. (1883)	Rev. Clyde H. Canfield	234 C	Presbyterian
Taylor University; Upland, Ind. (1846)	Evan H. Bergwall	592 C	Private
Temple University; Philadelphia, Pa. (1884)	Robert L. Johnson	10,634 C	Private
Tennessee, University of; Knoxville, Tenn. (1794)	C. E. Brehm	5,612 C	State
Tennessee Agr. & Ind. State University; Nashville, Tenn. (1912)(N)	Walter S. Davis	2,563 C	State
Tennessee Polytechnic Institute; Cookeville, Tenn. (1915)	Everett Derryberry	2,000 C	State
Tennessee Wesleyan College; Athens, Tenn. (1857)	LeRoy A. Martin	325 C	Methodist
Texas, A & M College of; College Station, Tex. (1876)	David H. Morgan	5,896 M	State
Texas, University of; Austin, Tex. (1881)	Logan Wilson	15,314 C	State
Texas Christian University; Fort Worth, Tex. (1873)	M. E. Sadler	4,012 C	Disc. of Christ
Texas College; Tyler, Tex. (1894) (N)	D. R. Glass	727 C	Col. M. E.
Texas College of Arts & Industries; Kingsville, Tex. (1925)[5]	Ernest H. Poteet	1,988 C	State
Texas Lutheran College; Seguin, Tex. (1891)	Edward A. Sagebiel	401 C	Lutheran
Texas Southern University; Houston, Tex. (1927) (N)	R. O'Hara Lanier	2,800 C	State
Texas State College for Women; Denton, Tex. (1901)	John A. Guinn	2,013 F	State
Texas Technological College; Lubbock, Tex. (1923)	E. N. Jones	5,859 C	State
Texas Wesleyan College; Fort Worth, Tex. (1890)	Law Sone	1,035 C	Methodist
Texas Western College; El Paso, Tex. (1914)[40]	Dysart E. Holcomb	3,326 C	State
Thiel College; Greenville, Pa. (1866)	Frederic B. Irvin	448 C	Lutheran
Toledo, University of; Toledo, Ohio (1872)	Asa S. Knowles	2,773 C	City
Tougaloo Southern Christian College; Tougaloo, Miss. (1869) (N)	Harold C. Warren	378 C	Cong. & D. of C.
Transylvania College; Lexington, Ky. (1780)	Frank A. Rose	424 C	Private
Trinity College; Burlington, Vt. (1925)	Mother M. Emmanuel	144 F	Catholic[4]
Trinity College; Hartford, Conn. (1823)	Albert C. Jacobs	1,060 M[6]	Episcopalian[4]
Trinity College; Washington, D. C. (1897)	Sister Mary Patrick	487 F	Catholic[4]
Trinity University; San Antonio, Tex. (1869)	James W. Laurie	2,927 C	Presbyterian[4]
Tufts University; Medford, Mass. (1852)[41]	Nils Y. Wessell	3,362 C	Private
Tulane University; New Orleans, La. (1834)	Rufus C. Harris	5,458 Co[31]	Private
Tulsa, University of; Tulsa, Okla. (1894)	Clarence I. Pontius	4,419 C	Presbyterian[4]
Tusculum College; Greenville, Tenn. (1794)	Raymond C. Rankin	303 C	Presbyterian
Tuskegee Institute; Tuskegee Institute, Ala. (1881) (N)	L. H. Foster	1,728 C	Private
Union College; Barbourville, Ky. (1879)	Conway Boatman	612 C	Methodist
Union College; Lincoln, Nebr. (1891)	H. C. Hartman	871 C	7th Day Adven.
Union College & University; Schenectady & Albany, N. Y. (1795)	Carter Davidson[14]	2,189 C	Private
Union University; Jackson, Tenn. (1834)	Warren F. Jones	421 C	Baptist
U. S. Coast Guard Academy; New London, Conn. (1876)	R. Adm. R. J. Mauerman[28]	420 M	Federal
U. S. Merchant Marine Academy; Kings Point, N. Y. (1938)	Rear Adm. G. McLintock[28]	900 M	Federal
U. S. Military Academy; West Point, N. Y. (1802)	Lt. Gen. B. M. Bryan[28]	2,217 M	Federal
U. S. Naval Academy; Annapolis, Md. (1845)	Rear Adm. W. F. Boone[28]	3,431 M	Federal
U. S. Naval Postgraduate School; Monterey, Calif. (1909)	Rear Adm. F. Moosbrugger[28]	464 C	Federal
Upper Iowa University; Fayette, Iowa (1857)	Eugene E. Garbee	274 C	Private
Upsala College; East Orange, N. J. (1893)	E. B. Lawson	1,486 C	Lutheran
Ursinus College; Collegeville, Pa. (1869)	Norman E. McClure	680 C	Evan. & Ref.[4]
Ursuline College; Louisville, Ky. (1338)	Mother M. Columba	320 F	Catholic[4]
Ursuline College for Women; Cleveland, Ohio (1871)	Mother Mary	239 F	Catholic[4]
Utah, University of; Salt Lake City, Utah (1850)	Albert R. Olpin	7,430 C	State
Utah State Agricultural College; Logan, Utah (1888)	Daryl Chase	3,305 C	State
Valdosta State College; Valdosta, Ga. (1906)	J. Ralph Thaxton	428 C	State
Valparaiso University; Valparaiso, Ind. (1859)	O. P. Kretzmann	2,000 C	Lutheran[4]
Vanderbilt University; Nashville, Tenn. (1872)	Harvie Branscomb[14]	2,923 C	Private
Vassar College; Poughkeepsie, N. Y. (1861)	Sarah G. Blanding	1,433 F	Private
Vermont, University of, & State Agr. College; Burlington, Vt. (1791)	Carl W. Borgmann	2,581 C	State
Vermont State Teachers College; Castleton, Vt. (1876)	Alden J. Carr	160 C	State
Vermont State Teachers College; Johnson, Vt. (1867)	Odino A. Martinetti	110 C	State
Vermont State Teachers College; Lyndon Center, Vt. (1911)	Rita L. Bole	129 C	State
Villa Maria College; Erie, Pa. (1925)	Sister M. Doloretta[17]	364 F	Catholic[4]

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Villanova University; Villanova, Pa. (1842)	V. Rev. J. Donnellon	3,759 C	Catholic
Virginia, Medical College of; Richmond, Va. (1838)	William T. Sanger	1,513 C	State
Virginia, University of; Charlottesville, Va. (1819)[33]	Colgate W. Darden, Jr.	3,900 M[6]	State
Virginia Military Institute; Lexington, Va. (1839)	Maj. Gen. W. H. Milton[28]	841 M	State
Virginia Polytechnic Institute; Blacksburg, Va. (1872)[35]	Walter S. Newman	3,128 C	State
Virginia State College; Petersburg, Va. (1882) (N)	Robert P. Daniel	2,200 C	State
Virginia Union University; Richmond, Va. (1865) (N)	John M. Ellison	839 C	Baptist[4]
Viterbo College; La Crosse, Wis. (1931)	Sister M. Francesca	200 F	Catholic[4]
Wabash College; Crawfordsville, Ind. (1832)	Frank H. Sparks	531 M	Private
Wagner Lutheran College; Staten Island, N. Y. (1883)	David M. Delo	1,300 C	Lutheran[4]
Wake Forest College; Wake Forest, N. C. (1834)[42]	Harold W. Tribble	1,606 C	Baptist
Walla Walla College; College Place, Wash. (1892)	P. W. Christian	1,099 C	7th Day Adven.
Wartburg College; Waverly, Iowa (1852)	C. H. Becker	670 C	Lutheran
Washburn University; Topeka, Kans. (1865)	Bryan S. Stoffer	1,176 C	City
Washington, State College of; Pullman, Wash. (1890)	C. Clement French	4,812 C	State
Washington, University of; Seattle, Wash. (1861)[11]	Henry Schmitz	13,675 C	State
Washington & Jefferson College; Washington, Pa. (1781)	Boyd C. Patterson	510 M	Private
Washington & Lee University; Lexington, Va. (1749)	Francis P. Gaines	1,008 M	Private
Washington College; Chestertown, Md. (1782)	Daniel Z. Gibson	389 C	Private
Washington Missionary College; Washington, D. C. (1904)	William H. Shephard	742 C	7th Day Adven.
Washington State Teachers College; Machias, Maine (1909)	Lincoln A. Sennett	85 C	State
Washington University; St. Louis, Mo. (1853)	Ethan A. H. Shepley[14]	4,947 C	Private
Wayne University; Detroit, Mich. (1868)	Clarence B. Hilberry	16,882 C	City
Waynesburg College; Waynesburg, Pa. (1849)	Paul R. Stewart	507 C	Presbyterian[4]
Webb Institute of Naval Architecture; Glen Cove, N. Y. (1889)	R. Adm. F. E. Haeberle[43]	69 M	Private
Webster College; Webster Groves, Mo. (1916)[50]	Sister M. Collins	337 F	Catholic[4]
Wellesley College; Wellesley, Mass. (1870)	Margaret Clapp	1,727 F	Private
Wells College; Aurora, N. Y. (1868)	Louis J. Long	354 F	Private
Wesleyan College; Macon, Ga. (1836)	B. Joseph Martin	425 F[8]	Methodist
Wesleyan University; Middletown, Conn. (1831)	Victor L. Butterfield	815 M[6]	Private
West Liberty State College; West Liberty, W. Va. (1837)	Paul N. Elbin	627 C	State
West Texas State College; Canyon, Tex. (1910)	James P. Cornette	2,364 C	State
West Virginia Institute of Technology; Montgomery, W. Va. (1895)	William B. Axtell	646 C	State
West Virginia State College; Institute, W. Va. (1891) (N)	William J. L. Wallace	1,071 C	State
West Virginia University; Morgantown, W. Va. (1867)	Irvin Stewart	5,341 C	State
West Virginia Wesleyan College; Buckhannon, W. Va. (1890)	W. J. Scarborough	840 C	Methodist
Western Carolina College; Cullowhee, N. C. (1889)	Paul A. Reid	954 C	State
Western College for Women; Oxford, Ohio (1853)	Herrick B. Young	260 F	Private
Western Illinois State College; Macomb, Ill. (1899)	Frank A. Beu	1,876 C	State
Western Kentucky State College; Bowling Green, Ky. (1906)	Kelly Thompson[18]	1,803 C	State
Western Maryland College; Westminster, Md. (1868)	Lowell S. Ensor	750 C	Methodist[4]
Western Michigan College; Kalamazoo, Mich. (1903)	Paul V. Sangren	5,100 C	State
Western Montana College of Education; Dillon, Mont. (1897)	Rush Jordan	244 C	State
Western Reserve University; Cleveland, Ohio (1826)	John S. Millis	4,772 C	Private
Western State College of Colorado; Gunnison, Colo. (1901)	P. P. Mickelson	747 C	State
Western Washington Coll. of Education; Bellingham, Wash. (1899)	W. W. Haggard	1,455 C	State
Westmar College; Le Mars, Iowa (1900)	D. O. Kime	377 C	Evan. Un. Breth.
Westminster College; Fulton, Mo. (1851)	Robert L. D. Davidson	325 M	Presbyterian
Westminster College; New Wilmington, Pa. (1852)	Will W. Orr	951 C	Presbyterian
Westminster College; Salt Lake City, Utah (1875)	J. Richard Palmer	353 C	Presb. & Meth.[4]
Wheaton College; Norton, Mass. (1834)	A. Howard Meneely	530 F	Private
Wheaton College; Wheaton, Ill. (1860)	V. Raymond Edman	1,766 C	Private
Wheelock College; Boston, Mass. (1889)	Winifred E. Bain	385 F	Private
Whitman College; Walla Walla, Wash. (1859)	Chester C. Maxey	724 C	Private
Whittier College; Whittier, Calif. (1901)	Paul S. Smith	1,008 C	Quaker[4]
Whitworth College; Spokane, Wash. (1890)	Frank F. Warren	801 C	Presbyterian
Wichita, Municipal University of; Wichita, Kans. (1895)	Harry F. Corbin	3,666 C	City
Wiley College; Marshall, Tex. (1873) (N)	J. S. Scott, Sr.	577 C	Methodist
Wilkes College; Wilkes-Barre, Pa. (1933)	Eugene S. Farley	756 C	Private
Willamette University; Salem, Oreg. (1842)	G. Herbert Smith	1,060 C	Methodist[1]
William and Mary, College of; Williamsburg, Va. (1693)	A. D. Chandler	1,642 C	State
William Jewell College; Liberty, Mo. (1849)	Walter P. Binns	628 C	Baptist[4]
William Smith College; Geneva, N. Y. See Seneca, Colleges of the			
Williams College; Williamstown, Mass. (1793)	James P. Baxter, 3rd	1,044 M	Private
Wilmington College; Wilmington, Ohio (1871)	Samuel D. Marble	523 C	Quaker[4]
Wilson College; Chambersburg, Pa. (1869)	Paul S. Havens	338 F	Presbyterian[4]
Wilson Teachers College; Washington, D. C. (1873)	Walter E. Hager	456 C	City
Winthrop College; Rock Hill, S. C. (1886)	Henry R. Sims	992 F	State
Wisconsin, University of; Madison, Wis. (1848)	Edwin B. Fred	15,905 C	State
Wisconsin Institute of Technology; Platteville, Wis. (1907)	Milton A. Melcher	165 C	State
Wisconsin State College; Eau Claire, Wis. (1916)	William R. Davies	986 C	State

Institution, location and (date founded)[1]	Chief executive[2]	No. of students	Control[3]
Wisconsin State College; La Crosse, Wis. (1905)	Rexford S. Mitchell	1,004 C	State
Wisconsin State College; Milwaukee, Wis. (1880)	J. Martin Klotsche	2,229 C	State
Wisconsin State College; Oshkosh, Wis. (1871)	Forrest R. Polk	614 C	State
Wisconsin State College; Platteville, Wis. (1866)	Chester O. Newlun	776 C	State
Wisconsin State College; River Falls, Wis. (1874)	E. H. Kleinpell	767 C	State
Wisconsin State College; Stevens Point, Wis. (1894)	William C. Hansen	924 C	State
Wisconsin State College; Superior, Wis. (1896)[5]	Jim D. Hill	746 C	State
Wisconsin State College; Whitewater, Wis. (1868)	Robert C. Williams	811 C	State
Wittenberg College; Springfield, Ohio (1845)	Clarence C. Stoughton	975 C	Lutheran
Wofford College; Spartanburg, S. C. (1854)	F. Pendleton Gaines, Jr.	612 M	Methodist
Woodstock College; Woodstock, Md. (1869)	Rev. Joseph F. Murphy	332 M	Catholic
Wooster, College of; Wooster, Ohio (1866)	Howard F. Lowry	1,068 C	Presbyterian
Worcester Polytechnic Institute; Worcester, Mass. (1865)	Arthur B. Bronwell	781 M	Private
Wyoming, University of; Laramie, Wyo. (1887)	G. D. Humphrey	2,284 C	State
Xavier University; Cincinnati, Ohio (1831)	V. Rev. J. F. Maguire	2,898 M[6]	Catholic[4]
Xavier University; New Orleans, La. (1925) (N)	Mother M. Agatha	1,113 C	Catholic[4]
Yale University; New Haven, Conn. (1701)	A. Whitney Griswold	6,974 M[6]	Private
Yankton College; Yankton, S. Dak. (1881)	Adrian Rondileau	234 C	Congregational[4]
Yeshiva University; New York, N. Y. (1886)	Samuel Belkin	2,500 Co	Jewish[4]
Youngstown College; Youngstown, Ohio (1908)	Howard W. Jones	3,790 C	Private

[1] The letter N indicates that the school is attended predominately by Negroes. [2] President, unless otherwise indicated. [3] Controlled, unless otherwise indicated. [4] Affiliated but not controlled. [5] Data applies to spring semester of 1954. [6] Women are admitted for special courses and/or graduate work. Barnard College is the women's undergraduate school of Columbia University. [8] Men are admitted for special courses and/or graduate work. [9] Historically related to American Baptist Convention. [10] Historically related to Congregational Church. [11] Data applies to fall semester of 1954. [12] Pembroke College is the women's undergraduate school of Brown University. [13] Acting President. [14] Chancellor. [15] Affiliated with Congregational, Baptist and Episcopal churches. [16] Rector. [17] Dean. [18] Provost. [19] Data applies to fall semester of 1952 [20] Quasi-public in control. [21] Fordham College is for men only. [22] Coeducational in p.m.; male only in a.m. [23] Mary Washington College is the constituent school for women of the University of Virginia. [24] Acting Chancellor. [25] General Church of the New Jerusalem (Swedenborgian). [26] Rutgers College is for men only; Douglass College, formerly New Jersey College for Women, is for women only; campuses at Newark and Camden are coeducational. [27] Date of founding as State Teachers College, founded 1855 as City Normal School. [28] Superintendent. [29] Female only at Park Ave. bldg.; coeducational at Bronx bldg. [30] Includes part-time students. [31] Newcomb College is the constituent school for women of Tulane University. [32] Some divisions are coeducational. [33] Maintained by individual Christian Scientists for sons and daughters of Christian Scientists. [34] Affiliated with Harvard University. [35] Radford College is the women's division of Virginia Polytechnic Institute. [36] Schools of law and business administration are coeducational. [37] Rockford Mens College, founded 1955, has enrollment of 53. [38] Controlled by Methodist, Presbyterian and Congregational churches. [39] Executive Vice President. [40] Part of University of Texas. [41] Jackson College is the Dept. of Women (Lib. Arts) for Tufts College. [42] Construction program under way to remove college to Winston-Salem. [43] Administrator. [44] Acting Director. [45] Historically related to Episcopal Church. [46] Coeducational in p.m., female only in a.m. [47] Director. [48] Acting Dean. [49] Professional schools located at Baltimore; Maryland State College located at Princess Anne. [50] Fontbonne, Maryville and Webster Colleges are corporate colleges of St. Louis University. [51] Marycrest College is the constituent school for women.

The National Park System of the United States

Source: National Park Service.

The National Park System of the United States, administered by the National Park Service, a bureau of the Department of the Interior, embraces a total of 174 areas, containing approximately 21,866,000 acres in federal ownership. Started with the establishment of Yellowstone National Park in 1872, the system includes not only the most extraordinary and spectacular scenic exhibits in the United States proper and in Alaska and Hawaii but also a large number of sites distinguished for their historic or prehistoric importance or scientific interest. The number and extent of the various types of areas which comprise the system, as of June 30, 1955, are as follows:

Type of Area	Number	Federal Land (Acres)	Lands within exterior boundaries not federally owned (Acres)	Total lands within exterior boundaries (Acres)
National Parks	28	12,670,440.24	419,138.56	13,089,578.80
National Historical Parks	6	11,565.67	5,654.05	17,219.72
National Monuments	84	8,975,656.60	223,929.18	9,199,585.78
National Military Parks	11	24,515.19	2,391.57	26,906.76
National Memorial Parks	1	68,509.91	2,681.43	71,191.34
National Battlefield Parks	3	5,498.12	3,251.16	8,749.28
National Battlefield Sites	6	188.63	547.35	735.98
National Historic Sites	10	1,314.52	2.12	1,316.64
National Memorials	11	4,425.73	58.13	4,483.86
National Cemeteries	10	215.10	5.00	220.10
National Parkways	4	78,668.68	34,775.63	113,444.31
National Capital Parks	1	35,042.39	1,446.30	36,488.69
Total, National Park System	175	21,876,040.78	693,880.48	22,569,921.26

National Parks

Name, location and year established as National Park	Area in U. S. ownership, acres	Outstanding characteristics
Acadia (Maine), 1919	30,378.15	Rugged seashore on Mt. Desert Island and adjacent mainland
Big Bend (Texas), 1944	692,304.70	Mountains and desert bordering the Rio Grande
Bryce Canyon (Utah), 1928	36,010.38	Area of grotesque eroded rocks brilliantly colored
Carlsbad Caverns (N. Mex.), 1930	45,846.59	One of the world's largest known caves; spectacular flight of bats.
Crater Lake (Oregon), 1902	160,290.33	Deep blue lake in crater of inactive volcano
Everglades (Florida), 1947	1,258,639.73	Sub-tropical area with abundant bird and animal life
Glacier (Montana), 1910	999,320.33	Rocky mountains with many glaciers and lakes
Grand Canyon (Arizona), 1919	673,062.12	Mile deep gorge, 4 to 18 miles wide, 217 miles long (105 in park).
Grand Teton (Wyoming), 1929	298,470.42	Picturesque range of high mountain peaks
Great Smoky Mts. (N. C.-Tenn.), 1930	507,168.16	Highest mountain range east of Black Hills; luxuriant plant life
Hawaii (Territory Hawaii), 1916	176,950.90	Spectacular volcanic area with two active volcanoes
Hot Springs (Arkansas), 1921	986.11	47 mineral hot springs said to have therapeutic value
Isle Royale (Michigan), 1940	133,838.51	Largest wilderness island in Lake Superior; great moose herd
Kings Canyon (California), 1940	453,718.38	Huge canyons; high mountains; giant sequoias
Lassen Volcanic (California), 1916	104,160.68	Only recently active volcano in United States proper
Mammoth Cave (Kentucky), 1936	50,695.73	Vast limestone labyrinth with underground river
Mesa Verde (Colorado), 1906	51,017.87	Best preserved pre-historic cliff dwellings in United States
Mount McKinley (Alaska), 1917	1,939,319.04	Highest mountain in North America; spectacular wildlife
Mount Rainier (Washington), 1899	241,571.09	Greatest single-peak glacial system in United States
Olympic (Washington), 1938	888,536.73	Finest mountain wilderness of Pacific Northwest
Platt (Oklahoma), 1906	911.97	Cold mineral springs with distinctive properties
Rocky Mountain (Colorado), 1915	255,631.87	Section of the Rocky Mountains; 65 peaks over 10,000 feet
Sequoia (California), 1890	385,178.32	Groves of giant sequoias; world's largest and probably oldest living things; includes Mt. Whitney, highest mountain in U. S. proper
Shenandoah (Virginia), 1935	193,472.98	Tree covered mountains; scenic Skyline Drive
Wind Cave (South Dakota), 1903	27,892.66	Limestone caverns in Black Hills; buffalo herd
Yellowstone (Wyoming-Montana-Idaho), 1872	2,213,206.55	World's greatest geyser area; spectacular falls and canyon; one of world's great wildlife sanctuaries
Yosemite (California), 1890	757,618.88	Mountains; inspiring gorges and waterfalls; giant sequoias
Zion (Utah), 1919	94,241.06	Multicolored gorge in heart of southern Utah desert

National Historical Parks

Name and location	Acreage in U. S. ownership
Abraham Lincoln (Kentucky)	116.50
Appomattox Court House (Va.)	968.25
Chalmette (Lousiana)	69.61
Colonial (Virginia)	7,131.08
Morristown (New Jersey)	957.96
Saratoga (New York)	2,322.27

National Monuments

Name and location	Acreage in U. S. ownership
Ackia Battleground (Miss.)	49.15
Andrew Johnson (Tennessee)	16.33
Arches (Utah)	34,049.94
Aztec Ruins (New Mexico)	27.14
Badlands (South Dakota)	103,547.69
Bandelier (New Mexico)	27,048.89
Big Hole Battlefield (Montana)	200.00
Black Canyon of the Gunnison (Colorado)	13,176.02
Cabrillo (California)	.50
Canyon de Chelly (Arizona)	83,840.00
Capitol Reef (Utah)	33,970.61
Capulin Mountain (N. Mex.)	680.42
Casa Grande (Arizona)	472.50
Castillo de San Marcos (Fla.)	18.51
Castle Clinton (New York)	1.00
Castle Pinckney (S. C.)	3.50
Cedar Breaks (Utah)	6,172.20

National Monuments—(cont.)

Name and location	Acreage in U. S. ownership
Chaco Canyon (New Mexico)	20,989.35
Channel Islands (California)	26,819.26
Chiricahua (Arizona)	10,480.90
Colorado (Colorado)	17,596.43
Craters of the Moon (Idaho)	48,003.86
Custer Battlefield (Montana)	765.34
Death Valley (Calif.-Nev.)	1,865,218.31
Devils Postpile (California)	798.46
Devils Tower (Wyoming)	1,193.91
Dinosaur (Utah-Colorado)	190,962.13
Effigy Mounds (Iowa)	1,204.36
El Morro (New Mexico)	880.80
Fort Frederica (Georgia)	94.40
Fort Jefferson (Florida)	47,125.00
Fort Laramie (Wyoming)	214.41
Fort Matanzas (Florida)	227.76
Fort McHenry (Maryland)	43.26
Fort Pulaski (Georgia)	5,361.62
Fort Sumter (South Carolina)	2.40
Fort Vancouver (Wash.)	59.91
Fossil Cycad (South Dakota)	320.00
George Washington Birthplace (Virginia)	393.68
George Washington Carver (Missouri)	210.00
Gila Cliff Dwellings (N. Mex.)	160.00
Glacier Bay (Alaska)	2,274,239.04
Gran Quivira (New Mexico)	450.94

Name and location	Acreage in U. S. ownership
Grand Canyon (Arizona)	193,040.00
Great Sand Dunes (Colorado)	35,522.39
Homestead (Nebraska)	162.73
Hovenweep (Utah-Colorado)	491.34
Jewel Cave (South Dakota)	1,274.56
Joshua Tree (California)	478,160.21
Katmai (Alaska)	2,697,590.00
Lava Beds (California)	46,238.69
Lehman Caves (Nevada)	640.00
Meriwether Lewis (Tennessee)	300.00
Montezuma Castle (Arizona)	783.09
Mound City Group (Ohio)	67.50
Muir Woods (California)	485.18
Natural Bridges (Utah)	2,649.70
Navajo (Arizona)	360.00
Ocmulgee (Georgia)	683.48
Old Kasaan (Alaska)	38.00
Oregon Caves (Oregon)	480.00
Organ Pipe Cactus (Arizona)	328,332.57
Perry's Victory (Ohio)	14.25
Petrified Forest (Arizona)	85,303.63
Pinnacles (California)	12,817.77
Pipe Spring (Arizona)	40.00
Pipestone (Minnesota)	115.60
Rainbow Bridge (Utah)	160.00
Saguaro (Arizona)	54,971.50
Scotts Bluff (Nebraska)	2,171.35
Sitka (Alaska)	53.81
Statue of Liberty (New York)	10.38
Sunset Crater (Arizona)	3,040.00
Timpanogos Cave (Utah)	250.00
Tonto (Arizona)	1,120.00
Tumacacori (Arizona)	10.00
Tuzigoot (Arizona)	42.67
Verendrye (North Dakota)	253.04
Walnut Canyon (Arizona)	1,641.62
White Sands (New Mexico)	140,247.04
Whitman (Washington)	45.84
Wupatki (Arizona)	34,733.03
Yucca House (Colorado)	9.60
Zion (Utah)	34,216.10

National Military Parks

Chickamauga and Chattanooga (Georgia-Tennessee)	8,189.64
Fort Donelson (Tennessee)	102.54
Fredericksburg and Spotsylvania (Virginia)	2,421.21
Gettysburg (Pennsylvania)	2,709.46
Guilford Courthouse (N. C.)	148.83
Kings Mountain (S. C.)	4,012.00
Moores Creek (North Carolina)	42.23
Petersburg (Virginia)	1,505.44
Shiloh (Tennessee)	3,730.18
Stones River (Tennessee)	323.86
Vicksburg (Mississippi)	1,329.80

National Memorial Park

Theodore Roosevelt (N. Dak.)	68,509.91

National Battlefield Parks

Kennesaw Mountain (Georgia)	3,094.21
Manassas (Virginia)	1,719.47
Richmond (Virginia)	684.44

National Battlefield Sites

Name and location	Acreage in U. S. ownership
Antietam (Maryland)	183.63
Brices Cross Roads (Mississippi)	1.00
Cowpens (South Carolina)	1.00
Fort Necessity (Pennsylvania)	2.00
Tupelo (Mississippi)	1.00
White Plains (New York)	0.00

National Historic Sites

Adams (Massachusetts)	4.77
Federal Hall Memorial (N. Y.)	.45
Fort Raleigh (North Carolina)	18.50
Hampton (Maryland)	45.42
Home of Franklin D. Roosevelt (New York)	93.69
Hopewell Village (Pa.)	848.06
Jefferson National Expansion Memorial (Missouri)	82.58
Old Phila. Custom House (Pa.)	.79
Salem Maritime (Massachusetts)	8.61
Vanderbilt Mansion (New York)	211.65

National Memorials

Coronado (Arizona)	2,745.33
Custis-Lee (Virginia)	2.71
DeSoto (Florida)	24.18
Fort Caroline (Florida)	116.38
House Where Lincoln Died (D. C.)	.05
Lincoln Memorial (D. C.)	.61
Lincoln Museum (D. C.)	.18
Mount Rushmore (S. Dak.)	1,220.32
Thomas Jefferson (D. C.)	1.20
Washington Monument (D. C.)	.37
Wright Brothers (N. C.)	314.40

National Cemeteries[1]

Antietam (Maryland)	11.36
Battleground (D. C.)	1.03
Fort Donelson (Tennessee)	15.34
Fredericksburg (Virginia)	12.00
Gettysburg (Pennsylvania)	15.55
Poplar Grove (Virginia)	8.72
Shiloh (Tennessee)	10.25
Stones River (Tennessee)	20.09
Vicksburg (Mississippi)	117.85
Yorktown (Virginia)	2.91

National Parkways

Blue Ridge (N. C.-Va.)	52,880.63
George Washington Memorial (Va.-Md.)	3,129.88
Natchez Trace (Tenn.-Ala.-Miss.)	21,997.78
Suitland (Md.-D. C.)	660.39

National Capital Parks

National Capital Parks (D. C.-Va.-Md.-W. Va.)	35,042.39

[1] Arlington National Cemetery, in Virginia, is not shown because it is under the jurisdiction of the Department of the Army rather than of the National Park Service.

Museums of the United States

Source: Questionnaires to Museums.

NEW YORK CITY

American Academy of Arts and Letters: 633 W. 155th St., New York 32. Open: wkdys. & Sun. during exhib. 2–5 (closed Mon.). Otherwise by appt. Free.
Painting, sculpture by members of Academy and National Institute of Arts and Letters. Winter Exhibition by candidates for Art Grants. Spring Exhibition by new members and recipients of Grants and honors. Hassam Fund purchases.

American Museum of Natural History: Central Park W. at 79th St., New York 24. Open: wkdys. 10–5, Sun. & hldys. 1–5. Free.
Covers all branches of natural sciences except systematic botany with thorough exhibits in each field. Planetarium.

Brooklyn Museum: Eastern Pkwy., Brooklyn 38, N. Y. Open: wkdys. 10–5, Sun. & hldys. 1–5 (closed Xmas). Free.
European and American paintings. Egyptian collection. Art of China, Japan, India, Near East. Exhibits showing Primitive and New World cultures. American rooms. Industrial design laboratory.

Cloisters: Ft. Tryon Pk., New York 33. Open: wkdys. 10–5 (closed Mon.), Sun., hldys. 1–5 (May–Sept., Sun., 1–6). Free.
Cloisters, chapel, chapter house reconstructed from parts of old European structures. Frescoes, polychromed statues, stained glass, Gothic tapestries.

Frick Collection: 1 E. 70th St., New York 21. Open: wkdys. 10–5 (closed Mon. & mo. of Aug.), Sun. & hldys. 1–5. Free.
Paintings, prints, drawings of 14th to 19th centuries. Italian Renaissance and French sculpture and furniture. Chinese and French porcelain. Concerts, lectures.

Guggenheim (Solomon R.) Museum, Solomon R. Guggenheim Foundation: 1071 5th Ave. (at 88th St.), New York 28. Open: wkdys. 10–6 (closed Mon.), Sun. 12–6. Free.
Works of leading 20th century European and American painters and sculptors. Free gallery talks. Regular exhibition from museum's collection, loan and one-man shows.

Hispanic Society of America (Museum & Library): Broadway bet. 155th & 156th Sts., New York 32. Museum open: wkdys. 10–4:30, Sun. 1–5 (closed Mon., July 4, Thnks. Day, Xmas). Library open: wkdys. 1–4:30 (closed Sun., Mon., hldys., mo. of Aug.). Free.
Paintings, sculpture, decorative arts, manuscripts and incunabula, representative of Hispanic culture. Numerous works on Hispanic art, history and literature published.

Metropolitan Museum of Art: 5th Ave. at 82nd St., New York 28. Open: wkdys. 10–5, Sun., hldys. 1–5. Free.
Extensive collection of European and American paintings, decorative arts, prints. Egyptian, Asiatic, Classical art. Musical instruments, arms and armor. American period rooms. Costumes and textiles. *See also* Cloisters.

Museum of Modern Art: 11 W. 53rd St., New York 19. Open: wkdys. 12–7, Sun. & hldys. 1–7. Adm. 60c (children 20c).
Founded 1929 to aid study of modern art and its application to manufacturing and practical life. Constantly changing exhibitions of contemporary painting, sculpture, photography, architecture, industrial design, films.

Museum of the American Indian, Heye Foundation: Broadway at 155th St., New York 32. Open: Tues.–Sat. 2–5 (closed Sun., Mon., hldys.). Free.
Archaeology and ethnology of Americas from Arctic Circle to Tierra del Fuego.

Museum of the City of New York: 5th Ave. at 104th St., New York 29. Open: wkdys. 10–5 (closed Mon.), Sun. 1–5, closed Xmas. Free.
History of New York City. Period costumes, furniture, miniature scenes, portraits, paintings, prints, manuscripts, silver, toys, fire engines, horse car.

National Academy of Design: 1083 5th Ave. (at 90th St.) New York 28. Open: wkdys. & Sun. 1–6 (during exhibitions).
Special annual exhibitions by selected organizations Oct. thru May.

New York Historical Society: Central Park W. at 77th St., New York 24. Open: wkdys. & Sun. 1–5, (Sat. 10–5, closed Mon., NY Day, July 4, Thnks. Day, Xmas, month of Aug.). Free.
New York city and state historical exhibits. Early American paintings and portraits. Period rooms. Audubon watercolors. John Rogers statuettes.

Roosevelt (Theodore) Museum: 28 E. 20th St., New York 3. Open: wkdys. 10–5 (closed Mon.), Sun. & hldys. 1–5 (closed Thnks. Day, Xmas, NY Day). Free.
Restored birthplace of Roosevelt. Mounted lion shot by him in Africa. Photographs, letters, trophies, personal items.

Whitney Museum of American Art: 22 W. 54th St., New York 19. Open: every day 1–5. Free.
Sculpture, paintings, watercolors, drawings by 20th-century American artists. Exhibitions of contemporary and historical American art.

CHICAGO

Art Institute of Chicago: Michigan Ave. at Adams St., Chicago 3, Ill. Open: wkdys. 9–5, Sun. 12–5. Adm. 25c. (free Wed., Sat., Sun., hldys.).

Paintings, sculpture, prints, drawings. Oriental arts; European, American decorative arts. Thorne Miniature Rooms.

Chicago Academy of Sciences, Museum of Natural History: 2001 N. Clark St., Chicago 14, Ill. Open: daily 10–5. Free.

Emphasis on regional natural history. Habitat groups of existing and prehistoric animals. Study collections of North American flora and fauna.

Chicago Historical Society: N. Clark St. at North Ave., Chicago 14, Ill. Open: wkdys. 9:30–4:30, Sun. 12:30–5:30. Free (Sun., Mem. Day, July 4, Lab. Day 25¢.).

Exhibits and period rooms from discovery and exploration of America to present. Special emphasis on history of Chicago. Washington, Lincoln exhibits.

Chicago Natural History Museum (formerly Field Museum): Roosevelt Rd. at Lake Shore Dr., Chicago 5, Ill. Open: wkdys. & Sun.—Nov.–Feb. 9–4; May–Aug. 9–6; Mar., Apr., Sept., Oct. 9–5 (closed Xmas and NY Day). Adm. 25¢. (free Thurs., Sat., Sun.).

Exhibits in anthropology, botany, geology, zoology. Prehistoric skeletons. Dioramas of Stone-Age Europe. Vast Egyptian collection. Model of moon.

Museum of Science and Industry: 57th St. at Lake Michigan, Chicago 37, Ill. Open: fall & winter—wkdys. 9:30–4 (Sat. 9:30–5:30), Sun. & hldys. 9:30–7; spring & summer—wkdys. 9:30–5:30, Sun. & hldys. 9:30–7. Free (small fee to several exhibits).

8 acres of exhibits. Working coal mine, iron foundry. Full-size 1910 street. Fully equipped farm and model railroad. Evolution of automobile, airplane, ships. Colleen Moore doll house.

Oriental Institute of the University of Chicago: 1155 E. 58th St., Chicago 37, Ill. Open: wkdys. 10–12, 1–5 (closed Mon.), Sun. 1–5. Free.

Representative collections of ancient Near Eastern objects, including 40-ton human-headed winged bull from Khorsabad, 16-ft. statue of Tutenkhamon from Egypt, gold ornaments from ancient Persia, ivories from Megiddo.

Vanderpoel (John H.) Memorial Art Gallery: Longwood Dr. at 96th St., Chicago 43, Ill. Open: wkdys. & Sun. 9–5 (closed hldys.). Free.

Paintings, watercolors, etchings, sculpture contributed by the artists in tribute to Mr. Vanderpoel.

WASHINGTON, D. C.

Corcoran Gallery of Art: 17th St. at New York Ave., N. W., Washington 6, D. C. Open: wkdys. 10–4:30 (closed Mon.; Sat. 9–4:30), Sun. & hldys. 2–5 (closed Xmas, NY Day & July 4). Free.

Specializes in American art, but has notable collection of 17th century Dutch and 19th century French paintings. Persian rugs, Italian majolica, Greek and Roman antiquities. Barye bronzes. American sculpture. Annual and special exhibitions of U. S. art.

Freer Gallery of Art: Jefferson Dr. at 12th St., S.W., Washington 25, D. C. Open: daily 9–4:30 (closed Xmas). Free.

Oriental paintings, sculpture, bronzes, pottery, metalwork, manuscripts. Largest extant Whistler collection.

National Air Museum, Smithsonian Institution: The Mall, 10th and Jefferson Dr., Washington 25, D. C. Open: every day but Xmas 9–4:30. Free.

35 aircraft exhibited, including Wright brothers' *Kitty Hawk Flyer,* Lindbergh's *Spirit of St. Louis,* Wiley Post's *Winnie Mae, Bell Supersonic X-1.*

National Collection of Fine Arts: Constitution Ave. at 10th St., Washington 25, D. C. Open: wkdys. & Sun. 9–4:30. Free.

Art collections given by Harriet Lane Johnston, Ralph Cross Johnson, William T. Evans, John Gellatly and others.

National Gallery of Art: Constitution Ave. at 6th St., Washington 25, D. C. Open: wkdys. 10–5, Sun. 2–10, closed Xmas & New Year's Day. Free.

Paintings, sculpture, drawings, prints, decorative arts given by Mellon, Kress, Widener, Rosenwald, Dale, the Booths, the Garbisches and others. Index of American Design.

Smithsonian Institution: on the Mall, Washington 25, D. C. Open: wkdys. & Sun. 9–4:30. Free.

Maintains the following museums and art galleries: Freer Gallery of Art, National Air Museum, National Collection of Fine Arts, National Gallery of Art, U. S. National Museum. *See* those entries.

United States National Museum, a Bureau of the Smithsonian Institution: several bldgs. on the Mall, Washington 25, D. C. Open: wkdys. & Sun. 9–4:30. Free.

Exhibits in anthropology, zoology, botany, geology, paleontology, engineering, industry, history and graphic arts.

PHILADELPHIA

Academy of Natural Sciences of Philadelphia: 19th and the Parkway, Philadelphia 3, Pa. Open: wkdys. 10–5 (summer 10–4), Sun. 1–5. Adm. 50c (children 25c).

Large habitat groups of animals of North America, Africa, Asia. Hall of Earth History, Audubon Bird Hall. Minerals, gems.

Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts: 20th St. at Benj. Franklin Pkwy., Philadelphia 3, Pa. Open: wkdys. 12–5 (Sat. 10–5, closed Mon.), Sun. 12–5. Adm. 50¢.

Activities grouped into 7 major categories: Benj. Franklin Memorial; monthly Journal; lectures; library; medal awards; museum of science and industry, including planetarium; research laboratories.

Pennsylvania Academy of the Fine Arts: Broad and Cherry Sts., Philadelphia 2. Open: wkdys. 10–5 (closed Mon., July 4, Thnks. Day, Xmas, NY Day), Sun. & hldys. 1–5. Free.

Permanent collections include American art from 18th century to present. Special winter exhibit of painting, sculpture. Fall exhibit of water colors, prints.

Philadelphia Museum of Art: Parkway at 26th St., Philadelphia 30, Pa. Open: wkdys. & Sun. 9–5 (closed all legal hldys.). Free.

Art from beginning of Christian era. Paintings: old masters, contemporary French, American, Mexican. Prints, decorative arts, period rooms. Oriental arts.

MUSEUMS IN OTHER CITIES

Alabama Museum of Natural History: University of Alabama, Tuscaloosa. Open: wkdys. & Sun. 8–5. Free.

All phases of natural history with emphasis on geology. *See also* Mound State Monument Archaeological Museum.

Atomic Energy, American Museum of: Oak Ridge, Tenn. Open: wkdys. 9:30–5; Sun. 12:30–6:30. Adm. 50c (children under 12 free).

Historical development and peacetime applications of atomic energy shown by progressive demonstrations, exhibits, motion pictures, miniature atomic reactor, Van de Graaff generator, etc.

Baseball Hall of Fame and Museum, Natl.: Main St., Cooperstown, N. Y.

Relics, pictures, documents of baseball history. Bronze plaques of game's immortals. *See also* Hall of Fame in index.

Berkshire Museum: Pittsfield, Mass. Open: wkdys. 10–5 (closed Mon.), Sun. 2–5. Free.

Art objects from Egyptian to modern times. Paintings and sculpture. Indian and Eskimo exhibits. Birds, animals, minerals. Original "One Horse Shay."

(Boston) Museum of Fine Arts: 465–479 Huntington Ave., Boston 15, Mass. Open: wkdys. 10–5 (closed Mon.), Sun. 1:30–5:30. Free.

European and American paintings. Early American silver, furniture, interiors. Print collection largest in U. S. Noted Asiatic, Egyptian, Classical collections.

Buffalo Fine Arts Academy—Albright Art Gallery: 1285 Elmwood Ave., Buffalo 22, N. Y. Open: Sun. & Mon. 2–6, rest of wk. 10–5 (closed Thnks. Day, Xmas, NY Day). Free.

European and American paintings. Egyptian, Greek, Roman, Oriental, Spanish, French & American sculpture.

Buffalo Museum of Science: Humboldt Park, Buffalo, N. Y. Open: wkdys. 10–5 (Sat. 9–5), Sun. & hldys. 1:30–5:30. Free.

Extensive natural history collections. African and South Sea exhibits. Chinese pottery. Babylonian seals.

California Academy of Sciences: Golden Gate Park, San Francisco 18. Open: wkdys. & Sun. 10–5. Free.

North American and African habitat groups. Astronomical exhibits, clocks, watches, minerals, plants. Steinhart Aquarium. Morrison Planetarium.

California Palace of the Legion of Honor: Lincoln Park, San Francisco. Open: daily 10–5 (hldys. 1–5). Free.

European and American paintings. Rodin sculpture and drawings. Furniture, bronzes, porcelain. Egyptian art.

Carnegie Institute: 4400 Forbes St., Pittsburgh 13, Pa. Open: wkdys. 10–5 (Tues. during winter mos. 10–10), Sun. 2–5. Free.

Department of Fine Arts: European and American paintings, ancient sculpture. Decorative and useful arts. Carnegie Museum: exhibits in history and natural history. Music Hall. Carnegie Library.

Cincinnati Art Museum: Eden Park, Cincinnati 6, Ohio. Open: wkdys. 10–5 (Tues. Oct.–Apr., 10–10), Sun. & hldys. 2–5 (closed Thnks. Day & Xmas). Free.

Painting, prints, decorative arts, period rooms, Near & Far Eastern potteries and bronzes. Egyptian, Greco-Roman, Medieval, Oriental sculptures.

Cleveland Museum of Art: Wade Park, Cleveland 6, Ohio. Open: wkdys. 9–5 (Wed. 9 A.M.–10 P.M., Fri. 9–5, 7–10 Oct. thru May, closed Mon.), Sun. 1–6. Free.

Classical and modern art of all nations and ages; considerable art of Cleveland. Paintings, sculpture, graphic arts, furniture, textiles. Byzantine, Medieval, Early American collections.

Cleveland Museum of Natural History: 2717 Euclid Ave., Cleveland 15, Ohio. Open: wkdys. 9–5, Sun. 1–5:30. Free.

Mammals, birds, reptiles, fish, insects, plant models, minerals, gems. Most complete mastodon yet found. African collections. Spitz planetarium.

Colorado Springs Fine Arts Center: 30 W. Dale St., Colorado Springs, Colo. Open: wkdys. 9–5 (closed Mon. from Sept. thru May), Sun. 1:30–5. Free.

Contemporary paintings. Important collection of Spanish-American New Mexican Santos. Southwest Indian arts and crafts. Frequent changing exhibitions.

Corning Glass Center: Corning, N. Y. Open: wkdys. & Sun. 9:30–5 (closed Mon.). Free.

Museum has most comprehensive collection of glass in world; Hall of Science and Industry shows many uses of glass in everyday life.

Currier Gallery of Art: 192 Orange St., Manchester, N. H. Open: wkdys. 10–5, Sun. 2–5. Free.

Paintings, prints, drawings, sculpture, glass, tapestries. American furniture and decorative arts of 17th to 19th centuries.

Davenport Public Museum: Brady St. at 7th, Davenport, Iowa. Open: wkdys. 9–5 (closed Mon.), Sun., hldys. 2–5. Free.
Science, history, applied art exhibits, including anthropology, ethnology, Oriental and Mediterranean culture. Art and Historical Library at 215 Main St.

Denver Art Museum: 5 separate branches. Administration offices: Schleier Gallery, 1343 Acoma St., Denver 4, Colo. Open wkdys. 9–5 (Mon. 2–5, 7–9), Sun. 2–5. Free.
European, American paintings and decorative arts. Oriental, South Sea, African, Latin American, American Indian arts and crafts.

Denver Museum of Natural History: City Park, Denver 6. Open: wkdys. 9–5, Sun. 12–5. Free.
Natural history of North and South America, Australia and South Pacific. Habitat groups of mammals and birds. Minerals, fossil mammal and reptile skeletons, New World archaeology.

Detroit Historical Museum: Woodward at Kirby, Detroit 2. Open: wkdys. 1–10 (Sat. 9–6, closed Mon.), Sun. 1–10. Free.
Walk through streets of 1840 & 1880, automobile and industrial exhibits, period rooms, model railroad.

Detroit Institute of Arts: 5200 Woodward Ave., Detroit, Mich. Open: Sept.–June—wkdys. 1–10 (Sat. 9–6, closed Mon.), Sun. 9–6; July & Aug.—wkdys. & Sun. 9–6 (closed Mon.); closed all hldys. Free.
Survey of history as expressed in arts. Paintings, sculpture, furniture, glass, gold work, ivory, graphic arts, textiles. Large murals by Diego Rivera. Movies.

Farmers' Museum: Lake Rd., Route 80, Cooperstown, N. Y. Open: May 1–Nov. 1, 9–6 daily. Re-created Village Crossroads, Nov. 1–Apr. 30, 9–5 daily exc. Mon. Adm. $1.
Early farm and handicraft tools. School house, country store, smithy, print shop, doctor's and lawyer's offices, pharmacy, tavern, farm unit. Cardiff Giant. Operated by N. Y. State Historical Assn.

Fenimore House: Lake Rd., Route 80, Cooperstown, N. Y. Open: May 1–Nov. 1—daily 9–6; Nov. 1–Apr. 30 daily 9–5. Adm. 75¢.
American portraits, genre paintings. Browere life masks of Founding Fathers. Hamilton-Burr Room. James Fenimore Cooper Collection. Folk art, Shaker collection. Library. Operated by N. Y. State Historical Assn.

Gardner (Isabella Stewart) Museum: 280 The Fenway, Boston 15, Mass. Open: Tues., Thurs., Sat. 10–4, Sun. 1–4 (closed other days, natl. hldys., and during Aug.). Free.
Renaissance art in building of Venetian palace style. Painting, sculpture, tapestries, furniture.

Heard Museum: 22 E. Monte Vista Rd., Phoenix, Ariz. Open (Nov. 1–May 1): wkdys. 10–5 (closed Mon.), Sun. 1–5. Free.
Prehistoric and historic pottery, blankets, beadwork, carvings, weapons, etc. from various parts of world.

Herron (John) Art Museum: 110 E. 16th St., Indianapolis, Ind. Open: wkdys. 9–5 (closed Mon. & hldys.), Sun. 1–6. Free.
European paintings from Renaissance to present. American paintings of 19th and 20th centuries. Egyptian, Greek, Asiatic sculpture and ceramics, Chinese bronzes, ceramics, jades.

Huntington (Henry E.) Library and Art Gallery: San Marino 9, Calif. Open: wkdys. & Sun. 1–4:30 (closed Mon. and during Oct.). Free.
18th century British paintings. Library of English and American history and literature. Gutenberg Bible. Franklin's autobiography in his handwriting. Botanical garden. Research facilities.

International Folk Art, Museum of (Unit of the Museum of N. Mex.): Off Old Pecos Rd., Santa Fe, N. Mex. Open: Mon. 7–9, Tues.–Sat. 10–5, Sun. 1–5. Free.
Collection of folk art from 50 countries. One of two such museums in world. (Other is in Sweden.)

Layton Art Gallery: 758 N. Jefferson St., Milwaukee 2, Wis. Open: wkdys. 9–5 (closed Mon.), Sun. 2–5. Free.
Exhibitions of selections from permanent collections, including contemporary artists.

Los Angeles County Museum: Exposition Park, Los Angeles 7, Calif. Open: wkdys. & Sun. 10–5 (closed Mon., Thnks. Day, Xmas). Free.
American, European, Eastern art. American, English silver. American Indian exhibits. California History Hall. Rancho La Brea Fossils.

Marine Historical Association, Inc.: Mystic, Conn. Open: wkdys. & Sun. 10–5 (closed Thnks. Day, Xmas.). Adm. $1 (children 25¢).
Reconstructed seaport of Age of Sail. Typical waterfront street. *Charles W. Morgan,* last of wooden whaleships.

Mint Museum of Art: 501 Hempstead Pl., Charlotte, N. C. Open: wkdys. 10–5 (closed Mon.), Sun. 3–5. Museum closed June 27–Sept. 8. Free.
American and European paintings and prints. Relics of former U. S. branch mint.

Mound State Monument Archaeological Museum: Moundville, Ala. Open: wkdys & Sun. 8–5. Adm. 50¢ adults, 25¢ children.
Uncovered Indian burials, etc., of Moundville Indians. Operated by Alabama Museum of Natural History.

Navajo Ceremonial Art, Museum of: Camino Lejo, near old Pecos Rd., Santa Fe, N. Mex. Open: wkdys. 9–12, 1–4:30 (closed Mon.), Sun. 3–5. Adm. 25c (free Sun.).
Sand paintings, ceremonial objects, baskets, blankets, silver. Music records of

chants. Comparative material from Asia and elsewhere. Library.

Nelson (William Rockhill) Gallery of Art and Atkins Museum of Fine Arts: 4525 Oak, Kansas City 11, Mo. Open: wkdys. 10–5 (Fri. 1–5, closed Mon.), Sun. & hldys. 2–6 (closed NY Day, July 4, Thnks. Day, Xmas). Also open Fri. eves. 7–10 from Oct. 1–Apr. 30. Adm. 25c. (free Sat., Sun., hldys., Fri. eves.).

European paintings from 13th century to present. Extensive Chinese collection. Egyptian, Greek, Roman collections. English pottery. Concerts, movies.

New York State Historical Association: Lake Rd., Route 80, Cooperstown, N. Y.

Maintains Farmers' Museum and Fenimore House. *See* those entries. Also operates museum and library on Moses Circle in village of Ticonderoga.

Newark Museum: 43–49 Washington St., Newark 1, N. J. Open: Oct.–June—wkdys. 12–5:30 (Wed. & Thur. 12–5:30, 7–9:30), Sun. & hldys. 2–6; July–Sept.—wkdys. 12–5, Sun. & most hldys. 2–6. Free.

Collections: American painting, sculpture; Tibetan, Chinese, Japanese arts; decorative arts, ancient glass & ceramics; natural science, ethnology, mechanical models. Planetarium.

Ringling (John & Mable) museums: Sarasota, Fla. Museum of Art, John Ringling Residence, Museum of the American Circus open wkdys. 9–4:30, Sun. 12:30–4:30. Closed Xmas and Labor Day. Adm: Art Museum $1; Residence (incl. Circus Museum), $1.50; Circus Museum, 50¢; general admission, $2.

Collection of old masters and 18th-century theater in Art Museum. Elaborate furnishings in Residence. Illustrative and historical material in Circus Museum.

Rosicrucian Egyptian, Oriental Museum: San Jose, Calif. Open: wkdys. 9–12 & 1–5 (Sat. 1–5), Sun. 12–5. Free.

Egyptian and Oriental antiquities. Mummies, statuary, jewelry, utensils, clothing. Reproductions of Egyptian rock tomb and temple. Art gallery.

(St. Louis) City Art Museum: Forest Park, St. Louis 5, Mo. Open: wkdys. & Sun. 10–5 (Mon. 2:30–9:30). Free.

Collection covers all fields of fine art: painting, sculpture, graphic art, decorative art, period rooms. Public restaurant.

San Diego, Fine Arts Gallery of: Plaza de Panama, Balboa Park, San Diego, Calif. Open: wkdys. 10–5 (closed Mon.), Sun. 1–5:30. Free.

European, American paintings, 14th century to present, with emphasis on Spanish, Italian art. Asiatic arts and prints.

San Diego Museum of Man: California Quadrangle, Balboa Park, San Diego, Calif. Open: wkdys. 10–4:45, Sun. 12–4:45. Free.

Exhibits on Egypt; primitive weapons; Choco, North American, San Diego County Indians; Mayan archaeology.

San Diego Society of Natural History—Natural History Museum: San Diego, Calif. Open: wkdys. & Sun. 10–4:30 (closed Xmas, NY Day). Free.

Mammals, birds, fossils, shells, plants, insects, minerals. Emphasis on Southwestern U. S., Sonora, Lower California.

San Francisco Museum of Art: War Memorial Bldg., San Francisco, Calif. Open: wkdys. 12–10 (Mon. 12–5), Sun. 1–5. Free.

Contemporary European, American paintings, sculpture, drawings, prints, architecture, photographs, decorative arts, including work by San Francisco artists. 40–50 exhibitions annually.

Southwest Museum, Inc.: Marmion Way at Museum Dr., Highland Pk., Los Angeles 42, Calif. Open: wkdys. & Sun. 1–5 (closed Mon., Xmas, July 4). Free.

American Indian exhibits, ancient and modern. Library, lectures. Casa de Adobe, reproduction of adobe hacienda, located at 4605 N. Figueroa St.; open Wed. & Sun. 2–5 P.M.

Toledo Museum of Art: Monroe at Scottwood, Toledo 2, Ohio. Open: wkdys. 9–5 (Mon. 1–5), Sun. hldys. 1–5. Free.

Dutch, French, English, American paintings. Old Masters. Prints, manuscripts, sculpture. Ancient, modern glass. Oriental, Egyptian art. Library, concerts.

Virginia Museum of Fine Arts: Boulevard at Grove Ave., Richmond 20. Open: wkdys. 11–5 (Fri. in winter 2–5, 8–10; closed Mon.), Sun. 2–5. Free Wed., Sat., Sun. (other days 30c).

European, American, Oriental, Pacific Island art. Special collections: modern French, American paintings, imperial Russian Jewels.

Wadsworth Atheneum: 25 Atheneum Sq., N., Hartford 3, Conn. Open: wkdys. 12–5 (Sat. 9–5, closed Mon., Gd. Fri., July 4, Labor Day, Thnks. Day, Xmas, NY Day), Sun. 2–5. Free.

European and American paintings and drawings from 1400 to present. Bronzes, porcelain, silver. American period rooms and furniture. Library, concerts, movies.

Walters Art Gallery: Charles and Centre Sts., Baltimore 1, Md. Open: wkdys. 11–5 (July–Aug. 11–4) (Mon., Oct.–May, 1:30–5, 7:30–9:30), Sun. & hldys. 2–5 (closed NY Day, July 4, Thnks. Day, Xmas Eve, Xmas). Free.

Art from ancient empires to 19th century Europe. Important collections of Etruscan art and medieval illuminated books.

Worcester Art Museum: 55 Salisbury St., Worcester 9, Mass. Open: wkdys. 10–5 (Tues. in Nov.–Apr. 10–10), Sun. 2–5, hldys. 2–5 (closed July 4, Thnks. Day, Xmas). Free.

Art from Egyptian to modern times, including Far East. Emphasis on painting and sculpture. Classes, lectures, concerts, films. Professional art school.

THE RISE OF THE UNITED STATES

by ARTHUR M. SCHLESINGER, SR.
Emeritus Professor of History, Harvard University

1. Under the English Flag

The land now comprehended within the United States once belonged to Spain, France, England, Holland and Sweden. Spain, colonizing from Mexico in the sixteenth and seventeenth centuries, expanded over most of the Gulf Coast, Texas and the border zone westward through California. France, moving down from Canada in the eighteenth century, annexed the Mississippi Valley from the Appalachians to the Rockies. Meanwhile, in the seventeenth century, the English began peopling the Atlantic shore, and finding the Dutch already established in the present New York and the Swedes in Delaware, seized their possessions.

Notwithstanding this varied international background, United States history has been largely the product of influences emanating from the seaboard communities. Unlike the Spanish and French, the English regarded their colonies as genuine extensions of the homeland, and the settlers sowed English customs, institutions and speech so thoroughly that they eventually spread everywhere. True, the transplanted ways underwent modification, but this arose from necessities imposed by a wilderness existence and, as time went on, from a growing sense of self-sufficiency.

Organized settlement began in 1607 at Jamestown, where the first representative assembly was set up in 1619. The Pilgrims followed at Plymouth in 1620, spearheading a much larger migration of Puritans into New England. Later in the century the Quakers occupied a midway region owned by William Penn, making Philadelphia their headquarters and fanning out in every direction. By 1700 all the thirteen colonies existed but the southernmost, Georgia, which came into being in 1733. The settlers crossed the ocean to escape economic, religious and political oppression and to start anew in a land of greater opportunity.

In time, other strains reinforced the original English population: French Huguenots, Scotch Irish, Germans and minor groups, including the Dutch and Swedes already on hand. African slaves, first introduced at Jamestown in 1619, were welcomed in all the colonies, though the economic need for them was greater in the South, and the system took deeper root there than elsewhere. The people in the North engaged mainly in small farming, fishing and commerce, the Southerners largely in plantation production. Everywhere the colonists practiced self-government. When they clashed with the English-appointed governors, the colonists usually won out by withholding appropriations.

As the population penetrated farther inland, the settlers encountered the French guarding Canada and the eastern fringes of the Mississippi Valley. In a succession of wars (1689–1763), paralleling greater struggles between the parent nations abroad, France was finally ejected from North America and Britain's dominion extended to the Mississippi. Spain fell heir to the country west of the river, though some years later Napoleon was temporarily to reclaim it for France.

2. Birth of the Nation

With the removal of the Gallic menace the colonists felt less dependent upon the mother country militarily, and England's change from her former policy of "salutary neglect" aroused active resentment. A series of revenue measures, starting with the Sugar Act of 1764, provoked meetings of protest, nonimportation pacts and mob demonstrations in America. Colonial home rule was at stake, also freedom of trade, and the provincials appealed to the principle: "No taxation without representation." Parliament's action in 1774 penalizing all Massachusetts for the deed of a few in dumping dutied tea into Boston Harbor led to the first armed clash at Concord and Lexington on April 19, 1775; but a year and more passed before the patriots resolved upon the hazardous step of independence. The famous Declaration of July 4, 1776, penned by Thomas Jefferson for the Second Continental Congress, justified revolution as the only means to guarantee the "unalienable Rights" of "Life, Liberty and the pursuit of Happiness." Under George Washington as commander in chief the fighting shifted from New England into the middle states and then into the south. General Gates's victory at Saratoga on October 17, 1777, brought England's ancient enemy, France, into the war; just four years later the British yielded to the Allies at Yorktown. The Peace Treaty in 1783 recognized the United States as stretching to the Mississippi.

The infant, though born and baptized, had yet to be weaned. The league of states, formed under the Articles of Confederation in 1781, proved too weak either to deal effectively with foreign countries, or to raise necessary funds, or to ensure unrestricted domestic trade. Within the states, however, Revolutionary idealism prompted action to forbid primogeniture and tax-supported religions, and the Northern commonwealths abolished slavery, a prohibition which Congress's Ordinance of 1787 extended to the territory north of the Ohio. Feebleness of government, combined

with social disturbances culminating in Shays's Rebellion in Massachusetts, made sober men tremble for the sanctity of property rights and seemed to cloud the nation's future. The Federal Convention, summoned in 1787, designed a new framework after much wrangling between rival interests and sections.

The Constitution established a government of three separate and co-ordinate departments—legislative, executive and judicial—each endowed with adequate power, and each to serve as a check and balance on the others. Within its own sphere the general government was supreme, and it exerted its will not through state officials, as under the Articles of Confederation, but immediately upon individuals. Direct popular representation was limited to the House of Representatives, the Senate being chosen by the legislatures (a system which lasted till 1913), the President designated by Electors (who in practice, however, quickly lost their deliberative function), and the Supreme Court appointed by the President and Senate for life. Opposed in many states because of its centralizing and undemocratic features, the Constitution eventually won adoption on the assurance that a bill of rights would be added to preclude federal interference with civil liberties such as freedom of speech, the press and religion. The first ten amendments, in 1791, fulfilled the promise.

Perhaps no convention would have ratified the Constitution if it had been realized that an indivisible Union would ensue. The framers, engaged in the practical task of curing the defects of the Confederation government, strewed phrases through the document that had contradictory implications. On the basis of the text it was possible for equally honest men to maintain that the states were more powerful than the nation, or that the nation overtopped the states. At one time or other nearly every legislature, given what it considered sufficient provocation, asserted the right of nullification or secession. Short of such extreme doctrines, controversy began almost immediately over the question of whether the Constitution should be construed broadly to enhance the national authority or narrowly to lessen it.

Under George Washington, President from 1789 to 1797, the new government became a going concern. Congress, guided by Secretary of the Treasury Alexander Hamilton, buttressed the public credit by arranging to pay at par the national debt and the war-incurred state debts and by creating a United States Bank modeled upon the Bank of England. These measures, especially the last, alarmed Jefferson, veteran liberal and Washington's Secretary of State. Fearing that the legislation would build up a dangerous moneyed class, he urged a strict interpretation of the Constitution in opposition to Hamilton's loose-construction views. The French Revolution widened the breach, for the Jeffersonian Democrats applauded as an upsurge of liberty what the Federalists dreaded as an eruption of chaos. But both men, knowing America's defenseless state, backed Washington's decision to maintain neutrality in France's war with England. Returned to power under John Adams, the Federalists in 1798, however, declared naval hostilities against France and passed the Alien and Sedition Acts to muzzle opposition criticism. Though Adams, defying his party, prevented a full-scale war, he lost the election of 1800 to Jefferson. The Federalists never saw office again.

3. Democracy and Nationalism

The farming interest, which Jefferson deemed the bulwark of free government, had steadily increased since the Revolution. As settlers trekked inland, new states joined the original thirteen: Vermont, Kentucky and Tennessee in the 1790's, with Ohio and others shortly to follow. Western pioneer life begot an intense individualism, fostered political and economic democracy, stimulated nationalism. In the South, by contrast, Eli Whitney's invention of the cotton gin in 1793 opened the way for plantation agriculture and Negro slavery to expand westward beyond the Mississippi. The growth of manufacturing in the Northeast introduced a third element into the scene. The rivalries of these sectional forces wove the principal strands of American history until the Civil War. Toward the mid-century the situation was further confused by the spread of manhood suffrage and a sudden mass immigration from Ireland and Germany.

Jefferson inaugurated the "Virginia Dynasty," his eight years giving way to two terms each of James Madison and James Monroe. He performed his greatest service by purchasing Louisiana from Napoleon in 1803, an act which, though violating his constitutional scruples, carried the flag to the Rockies and vastly enlarged the agricultural domain. With France and England again locked in conflict, depredations on American commerce gave constant provocation to war, but the peace-loving Jefferson applied economic sanctions in the form of an embargo keeping merchantmen at home. Such measures failed, however, and under Madison in 1812 Congress, goaded by the Warhawks, mostly Westerners, declared war on England. Unlike France, she had compounded her offenses by impressing American sailors and, moreover, lay exposed to land attack in Canada. But the assaults on Canada miscarried, and Britain's attempts at counter-invasion with veterans freed by Napoleon's defeat in 1814 fared little better. Unhappily, An-

drew Jackson's victory at New Orleans on January 8, 1815, occurred two weeks too late to affect the Peace Treaty of Ghent, which settled none of the prewar disputes.

Nevertheless the war experience greatly accelerated American nationalism. In 1816 Congress enacted the first protective tariff and chartered a new United States Bank on the model of Hamilton's. In 1819 the country acquired the Gulf region from Spain, who chose to sell rather than have it seized. In 1823 the President, prompted by successful revolutions in Latin America, proclaimed the Monroe Doctrine, warning Europe to keep hands off this new area of freedom.

Other events, however, prefigured growing sectional discord. Opposition to admitting Missouri as a slave state was ended in 1820 only by Congress's agreeing that the rest of the Louisiana Purchase north of the parallel marking her southern boundary should be free soil. Successive tariffs alienated Southerners as class legislation discriminating against their welfare. Tutored by the astute South Carolinian, John C. Calhoun, they refurbished the doctrine of state rights as defensive armor. John Quincy Adams's administration (1825–1829) did nothing to improve conditions, and the advent of his successor, Jackson, precipitated a crisis.

Old Hickory, as indomitable in peace as in war, acted boldly against divisive tendencies, whether from the slavocracy or the money power. When South Carolina nullified the Tariff of 1832, he prepared for military action, whereupon the state accepted Congress's olive branch of a lower scale of duties. He smote financial privilege by destroying the Second United States Bank, which wielded monopolistic control over the nation's credit facilities. After eight years Jackson's lieutenant, Martin Van Buren, took over, but a business depression following the Panic of 1837 so discredited his administration that in 1840 the Whigs uproariously elected William Henry Harrison in the famous log-cabin campaign. He died after a month in office, however, and the Whigs fared hardly better with his unintended successor, John Tyler, whose strict-constructionist predilections foiled their plan to establish a third national bank.

Within the free states these years witnessed a ceaseless ferment of humanitarian agitation: crusades for public education, temperance, prison reform, labor's rights, women's rights. Humane people, viewing slavery as an anachronism and a sin, formed organizations to urge its abolition. The moderate-minded, content with demanding its exclusion from the territories, founded a series of unsuccessful parties, beginning with the election of 1840. The South, frightened by these threats to its cherished institution, found little good in any of the movements and regarded the restless North with mounting apprehension.

4. Sectional Conflict

Western expansionist zeal plus the Southern desire for more slave territory elected James K. Polk over his Whig rival, Henry Clay, in 1844. When the outgoing Congress executed the Democratic pledge to annex Texas, Polk proceeded to high-pressure England into partitioning the jointly held Oregon country at the forty-ninth parallel, and in 1846, while that was still under way, contrived a war with Mexico to acquire California and the territory eastward to Texas. American forces quickly overran northern Mexico and California, but a fiercely contested march from Veracruz through the mountains to Mexico City proved necessary before Polk achieved his goal in the Treaty of Guadalupe Hidalgo early in 1848.

The conquests approximately completed the present continental boundaries. The immediate effect, however, was to arouse sectional dissention over the question of slavery in the new Southwest. Zachary Taylor, elected by the Whigs in 1848, died in office after sixteen months, leaving the crisis in the lap of Millard Fillmore. The Compromise of 1850, piloted through Congress by Henry Clay, admitted California as a free state, left slavery in Utah and New Mexico territories to future judicial determination, and disposed of other disputes. But the settlement soon turned into unsettlement, for Fillmore's Democratic successors, Franklin Pierce and James Buchanan, supported pro-Southern policies.

The Kansas-Nebraska Act of 1854, authorizing slavery by "popular sovereignty" in the country just west of Missouri and Iowa, outraged Northerners as a base repudiation of the historic Missouri Compromise. Guerrilla warfare followed in Kansas, while in the free states the old-time antislavery elements joined with dissident Whigs and Democrats to organize the Republican party. The Republicans insisted that slavery be kept out of all federal territories. Angry contests on the floors of Congress operated like a war of nerves, convincing each side that the other was plotting its ruin. John Brown's insane attempt in 1859 to incite a servile insurrection merely poured oil on the flames. When the Republicans in 1860 elected Abraham Lincoln over a divided Democratic opposition, eleven slave states, appealing to state-rights principles, seceded and established the Confederate States of America.

For the hostilities that ensued, the North possessed the long-run advantage

of superior economic resources and man power, but before these could come into play, the South hoped to win by military prowess and perhaps by the intervention of England, which needed Southern cotton. England, however, never went quite so far, and the Southern authorities failed also to reckon with the inspired leadership of President Lincoln, who taught his people that the preservation of the Union involved not only their country's future but the democratic hope everywhere. While the North went about establishing a blockade by sea, the Confederates under Robert E. Lee brilliantly repulsed repeated land attacks on their capital, Richmond, and countered with battles on Northern soil at Antietam in 1862 and Gettysburg in 1863. But in the west they steadily lost ground until the Union forces late in 1864 swept around the southern tip of the mountains into Lee's rear and, by a pincers movement with Ulysses S. Grant before Richmond, brought final defeat the following April. As soon as military fortunes favored, Lincoln under his war powers proclaimed the emancipation of slaves in all unconquered states and districts, and the Thirteenth Amendment in 1865 universalized the decree. America at long last had caught up with the preamble of the Declaration of Independence.

Even prior to his re-election in 1864, Lincoln "with malice toward none" announced a plan to ease the return of the Southern states to their former place in the Union; but before much could be accomplished, his assassination in April, 1865, brought into office Andrew Johnson, who shared his views of reconstruction without his gifts of persuasion. Over Johnson's vetoes the radical Republicans adopted a punitive program. They imposed military rule upon the South, impeached and almost ousted the President, and exacted ratification of the Fourteenth and Fifteenth Amendments before readmitting the last states in 1870. These amendments were designed to make the freedman a full-fledged citizen and voter. Even so, federal bayonets kept Northern-controlled carpetbag governments in power for several years more.

5. Business and Government

Already the Republicans were changing from a humanitarian party to one of conservative business. The war gave an immense stimulus to economic life, speeding the construction of railways, the exploitation of minerals and other resources, the development of large-scale manufacturing, the accumulation of wealth, and bringing to the fore great captains of industry and finance, who naturally turned for favors to the dominant party. Despite economic depressions after the Panics of 1873 and 1893, this alliance of business and politics governed the country almost uninterruptedly for the rest of the century, putting successively into office Grant (for eight years), Rutherford B. Hayes, James A. Garfield, Chester A. Arthur (for Garfield's unexpired term), Benjamin Harrison and William McKinley (for two terms).

In the Hayes-Tilden election of 1876, however, the Republicans nearly came to grief, partly because of revelations of widespread graft in Grant's second administration, and partly because of disputed electoral returns from the surviving carpetbag states. A special commission, created by Congress, decided for Hayes by a strictly partisan vote. The Democrats actually won eight years later, the voters preferring Grover Cleveland to James G. Blaine, whom they suspected of political corruption. Cleveland, though defeated in 1888, triumphed again in 1892 largely because the Republicans had claimed too much for the beneficence of tariff protection. The Republicans avoided other disasters by harping upon Democratic disloyalty during the Civil War ("waving the bloody shirt") and by catering to the Northern veterans' vote with generous pensions.

Conservative Republicanism met its principal difficulties in Congress, where the Western members, supported usually by Southern Democrats, uneasily resisted capitalistic domination. The Farther West, peopling rapidly after the war, gave a fresh dimension to the nation. Thanks to the attractions of precious minerals, cattle raising and free homesteads, this last frontier yielded steadily to settled communities, and between 1876 and 1896 eight additional states entered the Union. A new sectionalism emerged in politics, for Western needs and aspirations differed at many points from those of the East. The wage earners, too, feared the growing power of Big Business, but despite mounting numbers they lacked political representation and hence concentrated on trade-union methods, forming the American Federation of Labor in 1881. The two depression periods produced violent strikes and upheavals. Labor, however, prevailed upon Congress to place restraints on immigration in order to discourage competition by underpaid workers, especially from Southern and Eastern Europe.

Legislative struggles nearly always pivoted on issues affecting the new industrial order. The problem of greenback inflation, arising from the war, was finally settled to Eastern satisfaction by the Resumption Act of 1875. The drive for higher and yet higher protection succeeded with occasional reverses until the Dingley Tariff in 1897 set a record. Congress under Western pressure took ineffective steps in 1887 and 1890 to regulate railways and business combinations, and it made some early concessions also to the Western de-

mand for free silver. During the Panic of 1893, however, Cleveland induced Congress to stop the inflation; and after the silverites, capturing the Democratic convention in 1896, failed to elect their nominee, William Jennings Bryan, the Republicans reduced silver to a minor coin and committed the country to the gold standard.

Foreign relations reflected similar tendencies, for the expanding industrial system demanded new markets, openings for investment and sources of raw materials. Cleveland withstood imperialistic sentiment, and in 1898 the McKinley administration intervened in the Cuban insurrection under the whip of popular anger at Spanish methods of repression and the explosion of the battleship *Maine* in Havana Harbor. Spain was quickly routed not only in the West Indies but also in her possessions off Asia. Though the "splendid little war" was prompted less by Wall Street than by a superheated sensational press, it bore fruit in the annexation of Puerto Rico, the Philippines and Guam, and brought businessmen further advantages through the quasi protectorate imposed on Cuba (later extended to other Caribbean countries). About the same time Hawaii and American Samoa were acquired, and Secretary of State John Hay's "open door" policy promised a growing trade with China. Theodore Roosevelt, raised to the presidency by McKinley's assassination in September, 1901, further advanced the cause by abetting a revolution against Colombia, thereby assuring the construction of the Panama Canal and much shorter distances within the colonial empire.

In domestic politics, however, Roosevelt aligned himself with the rising sentiment against business-dominated government, preaching with gusto the doctrine of the "square deal," and in his seven years breaking ground for later and more substantial advances. Despite party reactionaries he put teeth into the enforcement of the Antitrust Act of 1890, bullied Congress into tightening control over railroads and industrial monopolies, and initiated measures for conserving the nation's natural resources. William Howard Taft, his choice as successor, quietly pursued similar policies; but Taft's endorsement of the steep Payne-Aldrich Tariff together with other missteps so embittered the reformers that, failing to prevent his renomination in 1912, they organized the Progressive party to run their idol "Teddy" again. The Democrats, facing a divided opposition, elected their candidate, Woodrow Wilson.

Superbly endowed intellectually, and gifted with Jefferson's power to express democratic aspirations, Wilson proceeded with magisterial authority to climax the earlier efforts at reform. The Underwood Tariff enacted the lowest rates since the Civil War; the Federal Reserve Act superseded an outworn national banking system; and the Clayton Act created the Federal Trade Commission to stop "unfair methods of competition." Two other measures, launched by popular demand during World War I, involved changes in the Constitution. The Eighteenth Amendment in 1920 enacted national prohibition, which ran its stormy course in thirteen years and required the Twenty-first for its undoing. The Nineteenth Amendment (1920) extended to all women the suffrage which in some states they already possessed.

6. World War and After

With America a neutral in 1914 when the European struggle began, the administration's chief energies turned to the protection of maritime rights. Wilson and his countrymen, hating war and traditionally isolationist, only gradually perceived the threat to national security if a militaristic Germany should supplant Britain as mistress of the Atlantic; but Berlin's revival of ruthless submarine operations a few months after Wilson's second election clarified men's minds. Congress, stirred by his appeal that "The world must be made safe for democracy," declared war on April 6, 1917. The government, racing against time, swiftly put the nation on a battle footing, enacting universal conscription, taking over the railways, and regimenting industry, labor and agriculture. It was the country's introduction to total war. In the summer of 1918 Yankee troops under General John J. Pershing helped repulse a great German drive on the Marne and in September shared in the mighty Meuse-Argonne counteroffensive, which ended the struggle on November 11.

At the Paris Peace Conference, Wilson fought stubbornly for the democratic settlement he had earlier outlined under Fourteen Points, but gained principally his proposal of a League of Nations, which he saw as a sort of continuing peace conference. At home the Republican-controlled Senate, whipping up isolationist sentiment, completed his rout, for when Wilson spurned efforts to amend the treaty, that body under the two-thirds requirement rejected it by a minority vote. The tide was turning from wartime idealism to what Warren G. Harding, overwhelmingly elected by the Republicans in 1920, called "normalcy." Disclosures of corruption in high government circles hastened Harding's death, elevating Calvin Coolidge, who renewed his presidency by election a year later and was followed in 1929 by Herbert Hoover. All three, while keeping out of the League, nevertheless co-operated with some of its minor activities and, on their own, concluded a number of collective treaties for temporary naval disarmament and the outlawry of war.

These part-way steps were offset, however, by an upsurge of economic nationalism: a skyward trend of protective duties, a relaxing of controls over giant corporations, and a quota limitation on European immigration. "Rugged individualism" produced the dizziest prosperity the country had ever known, only to collapse in 1929 into the worst depression ever known. Hoover, striving vainly to repair the damage, met abject defeat in 1932 at the hands of the socially minded Franklin D. Roosevelt, who pledged a "new deal" by the Democrats. Under Roosevelt's thrilling leadership Congress, casting precedent to the winds, voted billions for relief, "primed the pump" of business and agriculture to hasten recovery, and inaugurated long-range reforms to increase foreign trade through reciprocal tariff reductions, reorganize banking practices, safeguard trade-union activities, guarantee minimum wages, destroy electrical holding companies, and provide for social insurance and a government-planned development of the Tennessee Valley.

7. World War Again

Toward Latin America Franklin Roosevelt adopted the "good neighbor" policy, relinquishing the Caribbean protectorates and transforming the Monroe Doctrine into a mutual nonaggression pact. As further evidence of the retreat from imperialism, Congress made provision for Philippine freedom in 1946. Relations with other parts of the world, however, posed increasing problems. As the Axis dictators and their Oriental partner, Japan, began overrunning weaker peoples, Congress under isolationist influences directed Roosevelt, against his wish, to embargo munition sales to both victim and assailant; but public opinion forced a lifting of the ban after England and France in September, 1939, took up arms against Nazi aggression. Hitler's subjugation of France the following June emboldened Roosevelt to more active steps, for crippled England now alone defended the Atlantic from totalitarian domination. Congress at his behest voted vast sums for rearmament and adopted peacetime conscription, and Roosevelt, without consulting Congress, gave England fifty destroyers in exchange for a string of naval bases off North America.

Isolationists, mostly Republicans, denounced Roosevelt's "warmongering," while he, still clinging to measures "short of war," stressed insistently the gathering dangers to the American way of life—to freedom of speech, freedom of worship, freedom from want and freedom from fear. The people responded by choosing him in 1940 as their first third-term President. In March, 1941, he secured adoption of the lend-lease plan and soon began using the navy to safeguard the supplies en route. Before matters reached a crisis, the Japanese war lords, irked by America's stiffening attitude toward their own conquests and gambling upon an Axis victory in Europe, treacherously attacked Pearl Harbor on December 7, clearing the way for the seizure of Guam, the Philippines and two of the Aleutians, as well as many Dutch and British holdings. Within four days Germany and Italy declared war against the United States.

America quickly girded herself for the mightiest struggle in history. Enlarging upon Wilson's wartime methods, the government completely reorganized the national economy for an unparalleled output of arms and food. By summer, sea, land and air forces were attacking the enemy all over the globe. In May, 1943, after bitter fighting, Anglo-American armies expelled the Axis from North Africa, then invaded southern Italy and forced the government's submission in September, though the Nazis there kept up the fight. Landing in Normandy in June, 1944, the Allies under Dwight D. Eisenhower's supreme command battered their way through France and across the Rhine, while the Russians pounded the Nazis from the east. On May 7, 1945, Germany unconditionally surrendered. The Pacific war was no less desperately contested; but the Allies, based on Australia, slowly won control of the sea and, pressing onward from island to island, hastened Japan's unconditional surrender on August 14, 1945, by loosing the atomic bomb and by Soviet Russia's last-minute entry into the conflict.

World War II was at an end, but what would be the nature of the peace? The Atlantic Charter, signed in August, 1941, by Roosevelt and Churchill and later agreed to by all the Allies, pledged them against "aggrandizement, territorial or other," but subsequent conferences by the major powers—at Cairo, Teheran, Yalta, Potsdam and elsewhere—foreshadowed a different outcome. Russia in particular demanded substantial territorial advantages. In July, 1946, the Allies gathered at Paris to draw up terms for Italy and the Axis satellites: Rumania, Bulgaria, Hungary and Finland. Germany and Japan, under armed occupation, were reserved for later handling.

Without waiting for final military victory, fifty countries, at Roosevelt's initiative and with bipartisan support in America, had set up a successor to the League: the United Nations. Roosevelt, elected a fourth time in 1944, died suddenly on April 12, 1945, several weeks too soon to assist in framing the charter at San Francisco.

His successor, Harry S. Truman, urged a broadened New Deal under the name Fair Deal but met with limited success, partly because of a coalition of Republi-

cans and Southern Democrats in Congress, partly because of mounting world crises. His tax program, accentuated by growing national-defense requirements, was considerably altered; and his labor program was defeated by the enactment, over his veto, of the Taft-Hartley law. In spite of strong Republican opposition, the rise of a States' Rights Democratic party in the South, and poll predictions of certain defeat, Truman was the people's choice in 1948. The Twenty-second Amendment, ratified during his second administration and limiting Presidents to two terms or ten years, did not apply to him.

Domestic affairs became secondary to increasingly acute world problems involving communism. As more nations came under Soviet domination, the concept of "One World" dimmed. A new policy, designed to contain communism within its existing limits and to prevent its spread by aggression, was evolved. Under this, the United States gave military and economic aid to Greece and Turkey, implemented the Marshall Plan with billions of dollars to speed European recovery and to halt the growth of communism, fostered the regeneration of Western Germany, negotiated the North Atlantic Defense Pact, and assisted Western Europe militarily. When Tito and Yugoslavia broke with the U.S.S.R. and the Cominform, the United States rendered economic aid.

In advancing its policies both before and after these American-sponsored measures, Moscow embarked upon the Cold War. Its blockade of Berlin necessitated the successful Anglo-American Airlift. It backed Communist activities in European countries, nursed rebellions in Asia and sabotaged the United Nations by its use of the veto. A peak of its offensive was reached when it supported North Korea and Red China with arms in their invasion of South Korea. This action caused the United States to co-operate with the United Nations in a massive police action, under General Douglas MacArthur, against the Reds. In spite of Russian opposition, a peace treaty was also concluded with Japan. The Republicans, abandoning the World War II bipartisan foreign policy, attacked the State Department and Secretary Dean Acheson, and seized upon Truman's recall of MacArthur for insubordination as the occasion for a senatorial investigation of Far Eastern policy.

During the tense period of the Cold War, American Communist-party leaders were convicted of conspiring against the United States, and several persons were found guilty of supplying Russia with atom-bomb secrets.

(Recent events are covered in our *Headline History of Our Times* and in the *News Record of 1955*.)

Electoral Vote by States

Alabama	11	Nebraska	6
Arizona	4	Nevada	3
Arkansas	8	New Hampshire	4
California	32	New Jersey	16
Colorado	6	New Mexico	4
Connecticut	8	New York	45
Delaware	3	North Carolina	14
Florida	10	North Dakota	4
Georgia	12	Ohio	25
Idaho	4	Oklahoma	8
Illinois	27	Oregon	6
Indiana	13	Pennsylvania	32
Iowa	10	Rhode Island	4
Kansas	8	South Carolina	8
Kentucky	10	South Dakota	2
Louisiana	10	Tennessee	11
Maine	5	Texas	21
Maryland	9	Utah	4
Massachusetts	16	Vermont	3
Michigan	20	Virginia	12
Minnesota	11	Washington	9
Mississippi	8	West Virginia	8
Missouri	13	Wisconsin	12
Montana	4	Wyoming	3

NOTE: Each state has as many electoral votes as it has U. S. Senators and Representatives. The 48 states have a total of 531 votes.

Portraits and Designs of U. S. Paper Currency

Denomination	Portrait	Design on back
$1	Washington	ONE between obverse and reverse of Great Seal of U. S.
$2	Jefferson	Monticello.
$5	Lincoln	Lincoln Memorial.
$10	Hamilton	U. S. Treasury Building.
$20	Jackson	White House.
$50	Grant	U. S. Capitol.
$100	Franklin	Independence Hall.
$500	McKinley	Ornate FIVE HUNDRED across.
$1,000	Cleveland	Ornate ONE THOUSAND across.
$5,000	Madison	Ornate FIVE THOUSAND across.
$10,000	Chase	Ornate TEN THOUSAND across.
$100,000*	Wilson	100,000 superimposed over dollar sign.

* For use only in transactions between Federal Reserve System and Treasury Department.

Principal Bills and Treaties Since 1900

PARTY ABBREVIATIONS

Dem.—Democratic
Rep.—Republican
A.L.—American Labor
F.L.—Farmer-Labor
Ind.—Independent
Prog.—Progressive
Proh.—Prohibition
Soc.—Socialist

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Hay-Pauncefote Treaty. England agreed the U. S. can build and control an Isthmian canal open to all nations on equal terms (ratified Dec. 16, 1901).		No vote required		72	6	Nov. 18, 1901
Spooner Bill. Authorized purchase of New Panama Canal Company's rights.		252	8	67	6	June 28, 1902
Elkins Act. Forbade railroads from deviating from published rates; punished givers and receivers of rebates		241	6	No record vote		Feb. 19, 1903
Hay-Bunau-Varilla Treaty. Granted the U. S. a ten-mile strip in Panama in perpetuity for $10,000,000 in gold and an annuity of $250,000.	Dem. Rep.	No vote required		9 41	15 1	Mar. 19, 1903
Hepburn Rate Bill. Gave the ICC control over express companies and pipe lines; allowed them to reduce rates upon complaint of shipper; outlawed midnight rates; forbade free passes; required uniform bookkeeping system.		216	4	71	3	June 29, 1906
Pure Food and Drug Act. Made shipments in interstate commerce of adulterated foods and drugs illegal.		240	17	63	4	June 30, 1906
Payne-Aldrich Tariff. Protective, averaging 36.38 per cent; lowered rates on coal, lumber, etc.; free list included wood pulp, oil, etc.		195	183	47	31	Aug. 5, 1909
Immigration Act. Barred paupers, anarchists, criminals and diseased persons.						Mar. 26, 1910
Mann-Elkins Act. Gave the ICC jurisdiction over telephone and telegraph companies; right to alter railroad rates on their own initiative.		200	126	50	12	June 18, 1910
Underwood-Simmons Tariff. Averaged 26.67 per cent with 958 reductions, 86 increases and 307 unchanged items.		254	103	36	17	Oct. 3, 1913
Glass-Owen Bill. Established a Federal Reserve system.		298	60	43	25	Dec. 23, 1913
Federal Trade Commission. Established to enforce antitrust laws.		No roll-call vote		53	16	Sept. 26, 1914
Clayton Antitrust Act. Prohibited monopolistic price discrimination, restrictive sales or leases, intercorporate stock holding, interlocking directorates of competing companies capitalized at $1,000,000 or more. Exempted labor from antitrust laws and declared peaceful picketing legal.		244	54	35	24	Oct. 15, 1914
Federal Farm Loan Act. Created system of land banks to lend money to farmers on their land and permanent improvements.		No roll-call vote		58	5	July 17, 1916
Keating-Owen Act. Forbade shipping in interstate commerce of goods produced by children. (Declared unconstitutional in 1918.)		337	46	52	12	Sept. 1, 1916
Adamson Act. Limited working hours of railroad employees to 8 per day on interstate railroads.		259	36	43	28	Sept. 3–5, 1916*
Burnett Immigration Bill. Required literacy test for immigrants.		308	87	64	7	Vetoed, Jan. 29, 1917
			(Reconsideration vote)			
		285	106	62	19	Feb. 5, 1917
Armed Neutrality Act. Allowed American vessels to be armed in war zones.				Filibustered		Defeated, Mar. 4, 1917
Declaration of War. Against Germany (World War I).		373	50	82	6	Apr. 6, 1917

* As Sept. 3 was a Sunday, the validity of the President's signature was questioned. Therefore, the bill was re-signed on the following Tuesday.

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Volstead Act. Prohibited manufacture, transportation and sale of beverages containing more than .5 per cent alcohol.		321	70	Voice vote approval		Vetoed, Oct. 27, 1919
			(Reconsideration vote)			
	Dem.	...	...	27	11	Oct. 28, 1919
	Rep.	...	...	38	9	
Treaty of Versailles.	Dem.	No vote required		4	42	Rejected, Nov. 19, 1919
	Rep.			35	13	
Transportation Act. Reorganized ICC with 11 members and increased powers; authorized loans to railroads; created Railroad Labor Board; provided for consolidation of railroads.		250	150	47	17	Feb. 29, 1920
Treaty of Versailles.	Dem.	No vote required		21	23	Rejected, Mar. 19, 1920
	Rep.			28	12	
Federal Water Power Act. Created federal power commission to license citizens who use navigable streams for power; licenses limited to 50 years.				52	18	June 18, 1920
Emergency Quota Act. Limited annual number of immigrants from any country to 3 per cent of that nationality living in U. S. in 1910. (Renewed in 1922 for two more years.)		No record vote		78	1	May 19, 1921
Capper-Volstead Act. Exempted farm co-operatives from antitrust laws.		284	49	58	1	Feb. 18, 1922
Washington Conference Treaties:						
Four Power Pacific Peace Pact. Related to Pacific island possessions of Britain, France, U. S., and Japan.	Dem.	No vote required		12	23	Mar. 24, 1922
	Rep.			55	4	
Five Power Limitation on Naval Armaments Treaty. Powers were U. S., Britain, France, Italy and Japan.		No vote required		74	1	Mar. 29, 1922
Nine Power Treaty. Guaranteed the territorial integrity of China.		No vote required		65	0	Mar. 30, 1922
Fordney-McCumber Tariff. Highly protective, averaging 33.22 per cent; gave tariff commission power to suggest that President increase or decrease rates not more than 50 per cent of original rate on any item to meet competition.	Dem.	...	...	3	24	Sept. 21, 1922
	Rep.	...	...	45	1	
World Court Protocol.	Dem.	No vote required		23	3	Defeated, Mar. 3, 1923
	Rep.			1	46	
Federal Intermediate Credit Act. Lent money to farmers to extent of 75 per cent of value of harvested crops and livestocks.		277	3	No record vote		Mar. 4, 1923
Bonus Bill. Provided 20-year endowment policies for veterans.	Dem.	177	20	32	9	Vetoed, May 15, 1924
	Rep.	175	34	33	8	
	F.L.	1	...	2	..	
	Soc.	1	...	..	..	
	Ind.	1	...	..	..	
			(Reconsideration vote)			
	Dem.	145	21	27	9	May 19, 1924
	Rep.	166	57	30	17	
	F.L.	...	...	2	..	
	Soc.	1	...	..	..	
	Ind.	1	...	..	..	
Immigration Quota Law. Limited annual number of immigrants to 2 per cent of each country's residents in U. S. in 1890. After 1927, the number was to be limited annually to 150,000. Did not apply to nations of Western Hemisphere.		308	58	69	9	May 26, 1924
World Court Membership.	Dem.	No vote required		36	2	Jan. 27, 1926
	Rep.			40	14	
	F.L.			..	1	
Norris-Morin Resolution. Would have completed construction of Muscle Shoals for nitrates and power.		251	165	48	25	Pocket veto, June 4, 1928

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Kellogg-Briand Pact. Outlawed wars and prescribed arbitration of international disputes.		No vote required		85	1	Jan. 15, 1929
Agricultural Marketing Act. Created federal farm board with power to lend money to farm co-operatives and to create stabilization corporations to buy farm surplus and to store and sell abroad to maintain prices.	Dem. Rep. F.L.	121 245 1	32 2 ...	33 21 ..	2 32 ..	June 15, 1929
Hawley-Smoot Tariff. Very high protective tariff, averaging 40.08 per cent but giving President power to initiate reduction or increase in rates.	Dem. Rep. F.L.	14 208 ...	132 20 1	5 39 ..	30 11 1	June 17, 1930
War Debt Moratorium. Provided for moratorium on payment of interest and war debt installments by nations indebted to U. S.	Dem. Rep. F.L.	120 196 1	95 5 ...	33 36 ..	6 6 ..	Dec. 23, 1931
Reconstruction Finance Corporation. Established with a working fund of $500,000,000 and power to borrow more to release frozen assets in banks and mortgage companies and to help bankrupt railroads.	Dem. Rep.	153 182	43 12	29 34	5 3	Jan. 22, 1932
Norris-LaGuardia Act. Limited granting of injunctions against labor; required open testimony in open court and outlawed yellow dog contracts.		363	13	75	5	Mar. 23, 1932
Hawes-Cutting Bill. Granted Philippine independence but was rejected by the Philippine legislature because of its economic and immigration provisions. Therefore, it did not become effective.		No record vote		No record vote (Reconsideration vote)		Vetoed, Jan. 13, 1933
	Dem.	191	1	45	1	
	Rep.	82	93	20	25	
	F.L.	1	...	1	..	
3.2 Percent Liquor Law. Legalized manufacture and sale of 3.2 wines and beers.	Dem. Rep.	No record vote		33 10	19 17	Mar. 22, 1933
Civilian Conservation Corps. Created to relieve unemployment and to work at reforestation, road building and flood control.		No roll-call vote		No roll-call vote		Mar. 31, 1933
Agricultural Adjustment Act. Created the AAA, which was authorized to limit acreage on specified crops at farmers' option and to pay benefits to farmers; money for this purpose to be raised by a process tax, which was declared unconstitutional Jan. 16, 1936.		315	98	52	31	May 12, 1933
Tennessee Valley Authority. Established to develop and sell electric power, to serve as yardstick for electricity rates, to develop rural electrification, to establish flood control, and to produce fertilizer.	Dem. Rep. F.L.	284 17 5	2 89 ...	48 14 1	3 17 ..	May 18, 1933
Federal Securities Act. Required that all stock and bond issues be registered and approved.		No roll-call vote		No roll-call vote		May 27, 1933
Home Owners Refinancing Act. Established the HOLC, which took over mortgages in exchange for bonds in order to save home owners from losing homes.		383	4	No record vote		June 13, 1933
Glass-Steagall Banking Act. Created Federal Deposit Insurance Corporation to insure deposits up to $5000; required that private banks be either investment or deposit banks, but not both.		No record vote		No roll-call vote		June 16, 1933
National Industrial Recovery Act. Created NRA; authorized establishment of trade associations; suspended antitrust laws; authorized drawing-up of codes of Fair Competition to be accepted by President; guaranteed collective bargaining and required employers to accept approved maximum and minimum wage provisions. (Declared unconstitutional in 1935.)	Dem. Rep. F.L.	266 53 4	25 50 ...	46 10 1	4 20 ..	June 16, 1933
Gold Reserve Act. Gave President power to devalue gold and to impound for treasury all gold in Federal System and to establish Exchange Stabilization Fund.	Dem. Rep. F.L.	287 68 5	2 38 ...	55 10 1	1 22 ..	Jan. 30, 1934
Farm Mortgage Refinancing Act. Created Federal Farm Mortgage Corporation to assist farmers in payment of mortgages on easier interest terms.		No record vote		No record vote		Jan. 31, 1934
Tydings-McDuffie Act. Gave the Philippine Islands independence.	Dem. Rep. F.L.	No roll-call vote		51 16 1	.. 8 ..	Mar. 24, 1934
Johnson Debt Default Bill. Forbade sale in this country of securities of defaulting countries.		No record vote		No record vote		Apr. 13, 1934

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Securities and Exchange Act. Established Securities and Exchange Commission; required licensing of stock exchanges; made certain speculative practices illegal; gave Federal Reserve Board power to fix margins; required full financial statements from registered companies.	Dem.	254	11	47	1	June 6,
	Rep.	22	73	15	12	1934
	F.L.	4	...	..	..	
Trade Agreements Act. Authorized President to reduce tariffs by as much as 50 per cent of prevailing rates for those countries which granted the U. S. most favored nation treatment without the need for Senatorial ratification for three years.	Dem.	No record vote		51	5	June 12,
	Rep.			5	28	1934
	F.L.			1	..	
National Housing Act. Created Federal Housing Administration to administer funds for modernizing homes and for lending for new construction.		176	19	No record vote		June 28, 1934
Federal Farm Bankruptcy Act (Frazier-Lemke Act). Declared moratorium on farm mortgage foreclosures. (Declared unconstitutional in May, 1935.)		No record vote		60	16	June 28, 1934
World Court Ratification.	Dem.	No vote required		43	20	Defeated,
	Rep.			9	14	Jan. 29,
	F.L.			..	1	1935
	Prog.			..	1	
National Labor Relations Act (Wagner-Connery Act). Created the NLRB with power to determine appropriate collective bargaining unit subject to elections they supervised at request of the workers; to certify the duly chosen trade union and to take testimony about unfair employer practices and issue cease and desist orders.	Dem.	No record vote		49	4	July 5,
	Rep.			12	8	1935
	F.L.			1	..	
	Prog.			1	..	
Social Security Act. Created social security board to administer old age benefits based on earnings before the age of 65; unemployment administered under state laws and grants to states to aid the needy aged, blind, orphans, widows, etc.		372	33	76	6	Aug. 14, 1935
Banking Act of 1935. Increased power of Federal Reserve Board of Governors over open market and credit transactions.		No record vote		No record vote		Aug. 23, 1935
Public Utilities Act (Wheeler-Rayburn Act). Required all public utilities to register with the SEC and limited utility holding corporations to first degree unless necessity required greater complexity.	Dem.	203	59	No record vote		Aug. 26,
	Rep.	7	83			1935
	F.L.	3	...			
	Prog.	6	...			
Farm Mortgage Moratorium Act. Allowed three-year moratorium on foreclosures with court permission upon payment of reasonable rental.		No record vote		No record vote		Aug. 29, 1935
Neutrality Act. Allowed President, for 6 months, to prohibit exports of arms, etc. (or their transportation by U. S. vessels) to belligerent countries.		211	83	79	2	Aug. 31, 1935
Soldiers' Bonus Bill. Made 9-year 3-per cent bonds redeemable on demand.	Dem.	265	29	56	9	Vetoed,
	Rep.	72	30	15	7	Jan. 24,
	F.L.	3	...	2	..	1936
	Prog.	6	...	1	..	
				(Reconsideration vote)		
	Dem.	248	32	57	12	Jan. 27,
	Rep.	66	29	16	7	1936
	F.L.	3	...	2	..	
	Prog.	7	...	1	..	
Soil Conservation and Domestic Allotment Act. Granted payments to farmers who let their land lie fallow or planted cover crops.	Dem.	246	25	49	9	Mar. 2,
	Rep.	20	64	5	11	1936
	F.L.	1	1	1	..	
	Prog.	...	7	1	..	
Reciprocal Trade Agreement Act. Extended to June, 1940, period during which President is authorized to negotiate foreign trade under Trade Agreements Act of 1934.		284	0	58	24	Mar. 1, 1937

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Neutrality Act. Forbade export of arms and ammunition to belligerents, the sale in this country of belligerents' securities, the use of American ships for carrying munitions; required belligerents to pay upon purchase and carry all purchases in their own ships (cash and carry clause).		377	12	41	15	May 1, 1937
Judiciary Act. Allowed voluntary retirement of Supreme Court justices and other federal court judges on full pension at age of 70.		No roll-call vote		Unanimous, no roll-call vote		Aug. 25, 1937
National Housing Act. Established the U. S. Housing Authority to administer loans to local communities and states for rural and urban construction. (Amended in 1938.)		275	86	64	16	Sept. 1, 1937
Agricultural Adjustment Act. Continued soil conservation program; provided parity payments and commodity loans to farmers; established crop insurance corporations and ever-normal granary plan.	Dem.	243	54	53	17	Feb. 16, 1938
	Rep.	14	74	2	11	
	F.L.	5	...	..	2	
	Prog.	1	7	..	1	
	Ind.	...	...	1	..	
Wage and Hours Act. Provided minimum wage of 25 cents to rise to 40 cents after 6 years; limited hours from 44 per week the first year to 40 after the third year; goods produced by "oppressive child labor" could not be shipped in interstate commerce.	Dem.	247	41	No record vote		June 25, 1938
	Rep.	31	48			
	F.L.	5	...			
	Prog.	7	...			
Alien Registration Act (Smith Act). Required fingerprinting of all aliens in U. S.; made it unlawful for anyone to advocate or teach overthrow of U. S. government or to belong to any group advocating such.		382	4	No record vote		June 28, 1940
Selective Service Act. Established system for compulsory service in armed forces. (Extended in 1941.)	Dem.	211	33	50	17	Sept. 16, 1940
	Rep.	52	112	8	10	
	F.L.	...	1	..	2	
	Prog.	...	2	..	1	
	Ind.	...	...	..	1	
	A.L.	...	1	..	..	
Lend-Lease. Provided system whereby U. S. lent goods and munitions to democratic nations in return for services and goods.		260	165	60	31	Mar. 11, 1941
Selective Service Act Extension. Extended period of service to not more than 30 months in time of peace and eliminated 900,000-man limit of Army.	Dem.	182	65	38	16	Aug. 18, 1941
	Rep.	21	133	7	13	
	Prog.	...	3	..	1	
	A.L.	...	1	..	..	
Declarations of World War II: Against Japan.	Dem.	235	...	56	..	Dec. 8, 1941
	Rep.	149	1	24	..	
	Prog.	3	...	1	..	
	Ind.	...	...	1	..	
	A.L.	1	...	..	..	
Against Germany.		393	0	88	0	Dec. 11, 1941
U. N. Charter Ratification.	Dem.	No vote required		53	..	July 28, 1945
	Rep.			35	2	
	Prog.			1	..	
Case Bill. Would have set up mediation board, established enforceable 30-day cooling-off periods in labor disputes, outlawed boycotts and sympathy strikes, and authorized court injunctions.	Dem.	97	91	33	13	Vetoed, June 11, 1946
	Rep.	133	13	28	6	
	Prog.	...	1	..	1	
	A.L.	...	1	..	..	
			(Reconsideration vote)			
	Dem.	96	118	No vote required		Defeated, June 11, 1946
	Rep.	159	15			
	Prog.	...	1			
	A.L.	...	1			
British Loan Act. Established $3,750,000,000 credit to Britain, including $650,000,000 in lend-lease.	Dem.	157	32	29	15	July 15, 1946
	Rep.	61	122	17	18	
	Prog.	...	1	..	1	
	A.L.	1	...	..	..	

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Atomic Energy Commission. Created five-man controlled commission without military representation but with military liaison; permitted Army and Navy to make atomic weapons; forbade distribution of fissionable materials or atomic energy information.		No record vote		No record vote		Aug. 1, 1946
Greek-Turkey Aid Bill. Authorized $400,000,000 to furnish aid to Greece and Turkey upon application, subject to withdrawal upon request of countries, of the U. N. Security Council or General Assembly, or of President if improperly used or unnecessary.	Dem. Rep. A.L.	160 127 ...	13 93 1	32 35 ..	7 16 ..	May 22, 1947
Treaty Ratifications: With Italy.	Dem. Rep.	No vote required		37 42	3 7	June 14, 1947
With Rumania.		No vote required		Voice vote approval		June 14, 1947
With Bulgaria.		No vote required		Voice vote approval		June 14, 1947
With Hungary.		No vote required		Voice vote approval		June 14, 1947
Taft-Hartley Bill (Labor-Management Relations Act, 1947). Prohibits closed shops but allows union shops by secret vote of majority of employes; makes unions subject to damage suits for unfair labor practices, such as boycotts or jurisdictional strikes; requires unions to file financial reports; requires union leaders to file statements that they are not Communistic.	Dem. Rep. A.L. Dem. Rep. A.L.	103 217 ... (Reconsideration vote) 106 225 ...	66 12 1 71 11 1	17 37 .. 20 48 ..	15 2 .. 22 3 ..	Vetoed, June 20, 1947 June 23, 1947
Presidential Succession Act. Made Speaker of House and President of Senate pro tempore next in line after Vice President.		365	11	50	35	July 18, 1947
National Security Act of 1947. Reorganized and co-ordinated armed forces under National Military Establishment headed by Secretary of Defense (of Cabinet rank) and including Secretaries of the Army, the Navy and the Air Force.		Voice vote approval		Voice vote approval		July 26, 1947
Foreign Assistance Act of 1948. Authorized $5.3 billion 1-year European Recovery Program, $275 million for military aid to Greece and Turkey, $463 million in economic and military aid for China, $60 million for U. N. Fund for Children.	Dem. Rep. A.L.	150 167 0	11 62 2	Voice vote approval		Apr. 3, 1948
Selective Service Act. Provided for registration of all men 18–25 and induction of enough men 19–25 to maintain Army of 837,000, Navy and Marine Corps of 666,882, and Air Force of 502,000.		259	136	Voice vote approval		June 24, 1948
Displaced Persons Bill. Admitted 205,000 European displaced persons, including 3,000 orphans.		Voice vote approval		Voice vote approval		June 25, 1948
Foreign Aid Appropriations. Appropriated funds for 1 year: $5.055 billion for ERP, $400 million for China, $1.3 billion for occupied areas, $225 million for Greece and Turkey, $35 million for U. N. Fund for Children, $70,710,228 for IRO.		318	62	Voice vote approval		June 28, 1948
Housing Bill. Authorized Federal loans for private construction of low-cost homes and apartments; liberalized loans to manufacturers of prefabricated houses.		351	9	Voice vote approval		Aug. 10, 1948
Bill to raise salaries: President's, $75,000 to $100,000 with new $50,000 tax-free allowance; Vice President's and Speaker's, $20,000 to $30,000 with $10,000 tax-free allowance.	Dem. Rep. A.L.	Voice vote approval		42 26 ..	0 9 ..	Jan. 19, 1949
ERP authorization: $5,430,000,000 for European recovery, consisting of $1,150,000,000 for April–June and $4,280,000,000 for fiscal year starting July 1.		Voice vote approval		Voice vote approval		Apr. 19 1949
Housing and slum-clearance bill. Provided for 810,000 dwelling units in 6 years, 5-year slum-clearance program, $325,000,000 in loans and grants for farm housing aid.		Voice vote approval		Voice vote approval		July 15, 1949
North Atlantic Treaty. (For full text, consult index.)	Dem. Rep.	No vote required		50 32	2 11	July 21, 1949

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
National Security bill. Changed National Military Establishment to executive Department of Defense; made Departments of Army, Navy and Air Force "military departments."		356	7	Voice vote approval		Aug. 10, 1949
Military Assistance Program. Authorized $1,314,010,000 in military aid: for Atlantic Pact countries, $1 billion; Greece and Turkey, $211,370,000; "general area" of China, $75,000,000; and South Korea, Iran and Philippines, $27,640,000.	Dem. Rep. A.L.	172 51 0	24 84 1	Voice vote approval		Oct. 28, 1949
Foreign-aid appropriations: $5,809,990,000, consisting of $4,852,380,000 for ERP, $912,500,000 for Army-occupied areas, $45,000,000 for Greek-Turkish aid, and $110,000 for joint Congressional Foreign-Aid Committee.		Voice vote approval		Voice vote approval		Oct. 2, 1949
Minimum-wage bill. Raised minimum wage from 40c to 75c an hour.		131	19	Voice vote approval		Oct. 26, 1949
Farm bill. Supported prices for wheat, corn, cotton, rice, peanuts at 90% of parity through 1950, 80–90% through 1951, and 75–90% on sliding-scale basis thereafter.		175	34	46	7	Oct. 31, 1949
Bill to repeal federal taxes on oleomargarine.		262	106	59	20	Mar. 16, 1950
Natural-gas bill (Kerr bill). Would have prevented FPC control on prices for natural gas distributed by interstate pipelines.		176	174 (No reconsideration vote)	44	38	Vetoed Apr. 15, 1950
Housing bill. Authorized over $3.5 billion in government loans and mortgage insurance for expansion of housing program. Also turned over to state and local authorities about 150 wartime and veterans' housing projects.		Voice vote approval		Voice vote approval		Apr. 20, 1950
Bill to increase Air Force and Army. Expanded Air Force to 70 groups and from 410,000 to 502,000 men; expanded Army from 592,000 to 837,000 men.		315	4	76	0	July 11, 1950
Social Security bill. Will raise present employer's and employee's 1½% payroll tax to 2% in 1954, 2½% in 1960, 3% in 1965, and 3¼% in 1970; provided financial aid to permanently disabled persons in need.		374	1	Voice vote approval		Aug. 28, 1950
Omnibus appropriations bill. Appropriated $35.554 billion, including $62.5 million loan to Spain, $14,680,084,443 for Defense Dept., $1.225 billion for rearming Western Europe, $2.526 billion for Marshall plan, $26.9 million for Point-4 program.		Voice vote approval		Voice vote approval		Sept. 6, 1950
Defense Production Act of 1950. Gave President power to curb prices, wages, and consumer credit, and to increase defense production.		Voice vote approval		Voice vote approval		Sept. 8, 1950
Bill to draft doctors, dentists, etc., up to 50 years of age, for 21-mo. service.		Voice vote approval		Voice vote approval		Sept. 9, 1950
Internal Security Act of 1950. Provided for registering of Communists and their internment in times of emergency.	Dem. Rep. A.L.	186 126 0	18 1 1 (Reconsideration vote)	24 27 ...	6 1 ...	Vetoed Sept. 22, 1950
	Dem. Rep. A.L.	161 125 0	45 2 1	26 31 ...	10 0 ...	Sept. 23, 1950
Tax-increase bill. Raised income taxes about 17%, corporation taxes about 15%; imposed 10% excise tax on TV sets and quick-freeze units.		328	7	Voice vote approval		Sept. 23, 1950
Emergency defense-appropriations bill. Appropriated $17,099,902,285, including $3.734 billion for Navy, $3.166 billion for Army, $260 million for atomic-weapon research, etc.		286	30	Voice vote approval		Sept. 27, 1950
Civil-defense bill. Provided $3.1 billion to be supplemented by state and local governments for bomb shelters and other civil defense.		Voice vote approval		Voice vote approval		Jan. 12, 1951
Emergency presidential powers. Gave President powers to modify existing defense contracts.		Voice vote approval		Voice vote approval		Jan. 12, 1951

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Navy modernization program. Provided for 173 new warships and other vessels suitable for modern atomic warfare.		365	0	Voice vote approval		Mar. 11, 1951
GI insurance law. Provided free $10,000 life insurance to all armed-forces personnel.		Voice vote approval		Voice vote approval		Apr. 25, 1951
Indian grain-loan act. U. S. to lend India $190 million to buy 2 million tons of food grains.		255	82	Voice vote approval		June 15, 1951
Reciprocal Trade Agreements Act. Extended reciprocal trade agreement act to June 12, 1953, and directed President to end any concessions to Soviet bloc.		Voice vote approval		Voice vote approval		June 16, 1951
Draft act. Extended draft to July 1, 1955, and increased service to 24 months; provided preliminary study for universal military service.		339	41	Voice vote approval		June 19, 1951
Pension bill. Raised to $120 a month the $60–$72 pensions to veterans disabled by nonservice disabilities.		Voice vote approval		Voice vote approval		Vetoed Aug. 6, 1951
		(Reconsideration vote)				
		318	45	69	9	Sept. 18, 1951
German peace resolution. Declared state of war with Germany ended.		376	0	Voice vote approval		Oct. 19, 1951
Taft-Hartley Law amendment. Permitted union-shop contracts without first polling employees.		307	18	Voice vote approval		Oct. 22, 1951
Atom-data bill. Authorized exchange of certain nonweapon atom data with friendly nations.		Voice vote approval		Voice vote approval		Oct. 30, 1951
Mutual Security Appropriation Bill. $7,328,903,976 voted for global military and economic aid, including $100 million for Spain.		Voice vote approval		Voice vote approval		Oct. 31, 1951
Japanese Peace Treaty. Formally ended state of war declared Dec. 7, 1941.		No vote required		66	10	Mar. 20, 1952
Tidelands Oil Bill. Gave clear title to states for submerged oil and other mineral deposits off their shores.		247	89	50	35	Vetoed, May 29, 1952
			(No reconsideration vote)			
McCarran-Walter Immigration and Nationality Act. Ended racial bars on immigration and retained quota system based on national origin.		205	53	Voice vote approval		Vetoed, June 25, 1952
			(Reconsideration vote)			
	Dem.	107	90	25	18	June 27,
	Rep.	170	23	32	8	1952
	Ind.	1	0	...	...	
West German Peace Contracts. Established working basis for relations with Bonn Government.		No vote required		77	5	July 1, 1952
New Puerto Rican Constitution. Made Puerto Rico a commonwealth and gave it greater home rule.		Voice vote approval		Voice vote approval		July 3, 1952
Income Tax Bill. Authorized deductions on contributions up to 20%, instead of previous 15%.		Voice vote approval		Voice vote approval		July 8, 1952
Fair Trade Acts of 1952. Allowed manufacturers and retailers to set prices on trade-marked articles where state laws concur.		196	10	64	16	July 14, 1952
Korea "G.I. Bill of Rights." Granted Korean veterans with 90 days service as of June 27, 1950, rights and benefits similar to those received by veterans of World War II.		322	1	Voice vote approval		July 16, 1952
Social Security Amendment. Increased Social Security benefits to aged by 12½% and authorized pensioners to earn up to $75 a month. Minimum payments set at $5 a month.		Voice vote approval		Voice vote approval		July 18, 1952

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
delands Oil Law. Gave coastal states right to all minerals in submerged lands within their historic boundaries; Federal government retained control of remainder of continental shelf.	Dem. Rep. Ind.	97 188 0	59 18 1	Voice vote approval		May 22, 1953
ant of 1 million tons of wheat to Pakistan to relieve famine.		310	75	Voice vote approval		June 25, 1953
xcess-profits tax extended for 6 months.	Dem. Rep. Ind.	156 169 0	38 38 1	Voice vote approval		July 15, 1953
mall Business Administration Act. Abolished RFC; replaced it by Small Business Administration with lending authority of $275 million; no loan to exceed $150,000.		Voice vote approval		Voice vote approval		July 30, 1953
oreign-Aid Authorization Act. Provided $4,531,507,000 for military and economic aid to 53 free countries.	Dem. Rep. Ind.	126 94 1	29 80 0	Voice vote approval		Aug. 7, 1953
efugee Immigration Act. Admitted 214,000 refugees in next 3 years over immigration quotas.		190	44	Voice vote approval		Aug. 7, 1953
tatehood for Hawaii and Alaska. (Allowed to die in House.)	Rep. Dem. Ind.	... ...	... ...	3 42 1	41 2 0	Defeated, 1954
ricker Amendment. Would have limited President's treaty-making power. (Defeated by lack of ⅔ majority vote.)	Rep. Dem. Ind.	... ...	... ...	32 28 0	16 14 1	Defeated, Feb. 25, 1954
ut in excise tax by $999 million a year.		395	1	72	8	Apr. 1, 1954
uthorization of St. Lawrence Seaway.	Rep. Dem. Ind.	144 96 1	64 94 0	Voice vote approval		May 13, 1954
xtension of Reciprocal Trade Act for 1 year.		Voice vote approval		Voice vote approval		July 1, 1954
ublic-housing bill. Allowed 35,000 units for year, but limited housing to cities where Federal slum clearance had displaced families.		358	30	59	21	Aug. 2, 1954
ax revision to cost $1.363 million in revenue.	Rep. Dem. Ind.	201 114 0	3 73 1	42 19 0	3 22 1	Aug. 16, 1954
ommunist Control Act. Outlawed Communist party, though membership in party was not made crime.		265	2	79	0	Aug. 24, 1954
ompromise Mutual Security Appropriation of $5,243,575,795, of which $2,781,499,816 is "new money."		188	77	Voice vote approval		Aug. 26, 1954
rm bill. Provided flexible price support.		208	47	44	28	Aug. 28, 1954
nendment to Atomic Energy Act of 1946. Allowed private interests to enter field of atomic power.	Rep. Dem. Ind.	Voice vote approval		6 38 1	35 6 0	Aug. 30, 1954
cial Security benefits increased and extended to additional 10,000,000 persons.		Voice vote approval		Voice vote approval		Sept. 1, 1954
eath penalty for peacetime espionage.		Voice vote approval		Voice vote approval		Sept. 3, 1954
vocation of citizenship of persons convicted by conspiracy to overthrow government by force.		Voice vote approval		Voice vote approval		Sept. 3, 1954

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Federal pay raise bill. Raised salaries of Senate and House members to $22,500; Vice President and House Speaker to $45,000; Justices of U. S. Supreme Court to $35,000; etc.	Dem. Rep.	119 104	53 60	Voice vote approval		Mar. 2 1955
Tax bill. Postponed almost $3 billion in corporation and excise tax cuts which were scheduled to go into effect Apr. 1, 1955.		386	8	Voice vote approval		Mar. 30 1955
Military pay raise bill. Provided pay raise for armed services amounting to $745 million per year.		Voice vote approval		Voice vote approval		Mar. 31 1955
Postal pay raise bill. Increased pay of postal workers by average of 8.8%.	Dem. Rep.	212 116	0 66	37 29	0 11	Vetoed May 19, 1955
				(Reconsideration vote)		
(Defeated in Senate by lack of 2/3 majority vote to override veto.)	Dem. Rep.	... ...	... ...	46 8	2 37	Defeated May 24 1955
Postal pay raise bill. Increased pay of postal workers by average of 8%.		407	1	78	0	June 10 1955
Reciprocal-trade bill. Extended reciprocal-trade law 3 years to June 30, 1958, and increased tariff-cutting powers of President.		347	54	Voice vote approval		June 21 1955
Selective Service bill. Extended draft 4 years and doctors' draft 2 years.		388	5	Voice vote approval		June 30 1955
Foreign-aid authorization bill. Authorized $3,285,800,000 for foreign-aid program.		262	120	Voice vote approval		July 8, 1955
Military reserves bill. Raised present 800,000-man reserve to 2,900,000 by mid-1959.	Dem. Rep.	169 146	38 40	Voice vote approval		Aug. 9, 1955
Housing bill. Authorized construction of 45,000 public-housing units by mid-1956.	Dem. Rep.	153 35	37 131	Voice vote approval		Aug. 11, 1955
Federal minimum-wage bill. Increased minimum from 75¢ to $1 per hour.	Dem. Rep.	192 170	29 25	Voice vote approval		Aug. 12 1955

How a Bill Becomes a Law

When a Senator or a Representative introduces a bill, he sends it to the clerk of his house, who gives it a number and title. This is the *first reading,* and the bill is referred to the proper committee.

The committee may decide the bill is unwise or unnecessary and *table* it, thus killing it at once. Or it may decide the bill is worthwhile and hold hearings to listen to facts and opinions presented by experts and other interested persons. After members of the committee have debated the bill and perhaps offered amendments, a vote is taken; and if the vote is favorable, the bill is sent back to the floor of the house.

The clerk reads the bill sentence by sentence to the house, and this is known as the *second reading.* Members may then debate the bill and offer amendments. In the House of Representatives, the time for debate is limited by a *cloture rule,* but there is no such restriction in the Senate except by a two-thirds vote for cloture. This makes possible a *filibuster,* in which one or more opponents hold the floor to defeat the bill.

The *third reading* is by title only, and the bill is put to a vote, which may be by voice or roll call, depending on the circumstances and parliamentary rules. Members who must be absent at the time but who wish to record their vote may be paired if each negative vote has a balancing affirmative one.

The bill then goes to the other house of Congress, where it may be defeated, or passed with or without amendments. If the bill is defeated, it dies. If it is passed with amendments, a joint Congressional committee must be appointed by both houses to iron out the differences.

After its final passage by both houses, the bill is sent to the President. If he approves he signs it, and the bill becomes a law. However, if he disapproves, he *vetoes* the bill by refusing to sign it and sending it back to the house of origin with his reasons for the veto. The objections are read and debated and a roll-call vote is taken. If the bill receives less than a two-thirds vote, it is defeated and goes no farther. But if it receives a two-thirds vote or greater, it is sent to the other house for a vote. If that house also passes it by a two-thirds vote, the President's veto is *overridden,* and the bill becomes a law.

Should the President desire neither to sign nor to veto the bill, he may retain it for ten days, Sundays excepted, after which time it automatically becomes a law without signature. However, if Congress has adjourned within those ten days, the bill is automatically killed, that process of indirect rejection being known as a *pocket veto.*

Diplomatic Personnel To and From the U. S.

(As of Sept. 1, 1955.) *Source:* U. S. Department of State.

Country	*U. S. Representative to*	*Rank*	*Representative from*	*Rank*
Afghanistan	Angus Ward	Amb.	Mohammad Kabir Ludin	Amb.
Argentina	Albert F. Nufer	Amb.	Dr. Hipólita J. Paz	Amb.
Australia	Amos J. Peaslee	Amb.	Sir Percy Spender	Amb.
Austria	Llewellyn E. Thompson, Jr.	Amb.	Dr. Karl Gruber	Amb.
Belgium	Frederick M. Alger, Jr.	Amb.	Baron Silvercruys	Amb.
Bolivia	Gerald A. Drew	Amb.	Don Victor Andrade	Amb.
Brazil	James C. Dunn	Amb.	João Carlos Muniz	Amb.
Bulgaria[1]	.....	....	.....	....
Burma	Joseph C. Satterthwaite	Amb.	James Barrington	Amb.
Cambodia	Robert McClintock	Amb.	Nong Kimny	Amb.
Canada	R. Douglas Stuart	Amb.	A. D. P. Heeney	Amb.
Ceylon	Philip K. Crowe	Amb.	R. S. S. Gunewardene	Amb.
Chile	Willard L. Beaulac	Amb.	Anibal Jara	Amb.
China[3]	Karl L. Rankin	Amb.	Dr. V. K. Wellington Koo	Amb.
Colombia	Philip W. Bonsal	Amb.	Dr. Don Eduardo Zuleta-Angel	Amb.
Costa Rica	Robert F. Woodward	Amb.	Don Fernando Fournier	Amb.
Cuba	Arthur Gardner	Amb.	Miguel Angel Campo	Amb.
Czechoslovakia	U. Alexis Johnson	Amb.	Dr. Karel Petrželka	Amb.
Denmark	Robert D. Coe	Amb.	Henrik de Kauffmann	Amb.
Dominican Republic	William T. Pheiffer	Amb.	Joaquín E. Salazar	Amb.
Ecuador	Sheldon T. Mills	Amb.	Dr. José R. Chiriboga V	Amb.
Egypt	Henry A. Byroade	Amb.	Dr. Ahmed Hussein	Amb.
El Salvador	Robert C. Hill	Amb.	Dr. Don Héctor David Castro	Amb.
Estonia	Legation closed	....	Johannes Kaiv[4]	CG
Ethiopia	Joseph Simonson	Amb.	Yilma Deressa	Amb.
Finland	Jack K. McFall	Amb.	Johan A. Mykopp	Min.
France	C. Douglas Dillon	Amb.	Maurice Couve de Murville	Amb.
Germany	James B. Conant	Amb.	Dr. Heinz L. Krekeler	Amb
Great Britain	Winthrop W. Aldrich	Amb.	Sir Roger Makins	Amb
Greece	Cavendish W. Cannon	Amb.	George V. Melas	Amb.
Guatemala	Edward J. Sparks	Amb.	José Luis Cruz Salazar	Amb.
Haiti	Roy Tasco Davis	Amb.	Jacques Léger	Amb.
Honduras	Whiting Willauer	Amb.	Carlos Izaguirre	Amb.
Hungary	Christian M. Ravndal	Min.	Károly Szarka	Min.
Iceland	John J. Nuccio	Min.	Thor Thors	Min.
India	John Sherman Cooper[5]	Amb.	Gaganvihari Lallubhai Mehta	Amb.
Indonesia	Hugh S. Cumming, Jr.	Amb.	Moekarto Notowidigdo	Amb.
Iran	Seldon Chapin	Amb.	Nasrollah Entezam	Amb.
Iraq	Waldemar J. Gallman	Amb.	Dr. Moussa Al-Shabandar	Amb.
Ireland	William H. Taft, 3rd	Amb.	John Joseph Hearne	Amb.
Israel	Edward B. Lawson	Amb.	Abba Eban	Amb.
Italy	Clare Boothe Luce	Amb.	Manlio Brosio	Amb.
Japan	John M. Allison	Amb.	Sadao Iguchi	Amb.
Jordan	Lester D. Mallory	Amb.	Abdul Monem Rifa'i	Amb.
Korea	William S. B. Lacy	Amb.	Dr. You Chan Yang	Amb.
Laos	Charles W. Yost	Amb.	Ourot R. Souvannavong	Min.
Latvia	Legation closed	....	Dr. Arnolds Spekke	Min.
Lebanon	Donald R. Heath	Amb.	Dr. Charles Malik	Amb.
Liberia	Richard Lee Jones	Amb.	Clarence Lorenzo Simpson	Amb.
Libya	John L. Tappin	Amb.	Saddigh Muntasser	Min.
Lithuania	Legation closed	....	Povilas Žadeikis	Min.
Luxemburg	Wiley Thomas Buchanan, Jr.	Min.	Hugues Le Gallais	Min.
Mexico	Francis White	Amb.	Don Manuel Tello	Amb.
Morocco	Julius C. Holmes	Min.	.....	....
Nepal	John Sherman Cooper[5]	Amb.	Gen. Shanker Shamsher Jang Bahadur Rana	Amb.
Netherlands	H. Freeman Matthews	Amb.	Dr. J. H. van Roijen	Amb.
New Zealand	Robert C. Hendrickson	Amb.	Leslie Knox Munro	Amb.
Nicaragua	Thomas E. Whelan	Amb.	Dr. Don Guillermo Sevilla-Sacasa	Amb.

Country	U. S. Representative to	Rank	Representative from	Rank
Norway	L. Corrin Strong	Amb.	Wilhelm Munthe de Morgenstierne	Amb.
Pakistan	Horace A. Hildreth	Amb.	Syed Amjad Ali	Amb.
Panama	Julian F. Harrington	Amb.	Don Joaquín José Vallarino	Amb.
Paraguay	Arthur A. Ageton	Amb.	Dr. Don Guillermo Enciso-Velloso	Amb.
Peru	Ellis O. Briggs	Amb.	Don Fernando Berckemeyer	Amb.
Philippines	Homer Ferguson	Amb.	Raul T. Leuterio	Min.
Poland	Joseph E. Jacobs	Amb.	Romuald Spasowski	Amb.
Portugal	James C. H. Bonbright	Amb.	Luis Esteves Fernandes	Amb.
Rumania	Robert H. Thayer	Min.	Anton Moisescu	Min.
Saudi Arabia	George Wadsworth[2]	Amb.	Sheikh Adbullah Al-Khayyal	Amb.
Spain	John Lodge	Amb.	Don José Maria Areilza	Amb.
Sweden	John M. Cabot	Amb.	Erik Boheman	Amb.
Switzerland	Frances E. Willis	Amb.	Henry de Torrenté	Min.
Syria	James S. Moose, Jr.	Amb.	Dr. Farid Zeineddine	Amb.
Thailand	(vacant)	Amb.	Pote Sarasin	Amb.
Turkey	Avra M. Warren	Amb.	Haydar Görk	Amb.
Un. of So. Africa	Edward T. Wailes	Amb.	Dr. John E. Holloway	Amb.
U.S.S.R.	Charles E. Bohlen	Amb.	Georgi N. Zaroubin	Amb.
Uruguay	Dempster McIntosh	Amb.	Dr. José A. Mora	Amb.
Venezuela	Fletcher A. Warren	Amb.	Dr. César Gonzáles	Amb.
Viêt-Nam	G. Frederick Reinhardt	Amb.	Tran Van Chuong	Amb.
Yemen	George Wadsworth[2]	Min.	Sayed Abdurrahman Ibn Abdussamed Abu-Taled	Cd'A
Yugoslavia	James W. Riddleberger	Amb.	Leo Mates	Amb.

[1] U. S. broke off diplomatic relations with Bulgaria on Feb. 20, 1950. [2] Accredited to Saudi Arabia and Yemen; resident Jidda. [3] Formosa (Taiwan). [4] Legation in New York. [5] Accredited to India and Nepal; resident in New Delhi, India.

(Amb.—Ambassador; Min.—Minister; CG—Consul General; Cd'A—Charge d'Affaires)

Assassinations and Attempts in U. S. Since 1865

CERMAK, Anton J. (Mayor of Chicago): Shot Feb. 15, 1933, in Miami by Giuseppe Zangara, who attempted to assassinate Franklin D. Roosevelt; Cermak died Mar. 6.

GARFIELD, James A. (President of U. S.): Shot July 2, 1881, in Washington, D. C., by Charles J. Guiteau; died Sept. 19.

LINCOLN, Abraham (President of U. S.): Shot Apr. 14, 1865, in Washington, D. C., by John Wilkes Booth; died Apr. 15.

LONG, Huey P. (U. S. Senator from Louisiana): Shot Sept. 8, 1935, in Baton Rouge by Dr. Carl A. Weiss; died Sept. 10.

McKINLEY, William (President of U. S.): Shot Sept. 6, 1901, in Buffalo by Leon Czolgosz; died Sept. 14.

ROOSEVELT, Franklin D. (President-elect of U. S.): Escaped assassination unhurt Feb. 15, 1933, in Miami. *See* Cermak.

ROOSEVELT, Theodore (ex-President of U. S.): Escaped assassination (though shot) Oct. 14, 1912, in Milwaukee while campaigning for President.

SEWARD, William H. (Secretary of State): Escaped assassination (though injured) Apr. 14, 1865, in Washington, D. C., by Lewis Powell (or Paine), accomplice of John Wilkes Booth.

TRUMAN, Harry S. (President of U. S.): Escaped assassination unhurt Nov. 1, 1950, in Washington, D. C., as 2 Puerto Rican nationalists attempted to shoot their way into Blair House.

The Liberty Bell

The Liberty Bell was cast in England in 1752 for the Pennsylvania Statehouse (now Independence Hall). Damaged in transit, it was recast in Philadelphia in 1753. It is inscribed with the words, "Proclaim liberty throughout all the land unto all the inhabitants thereof" (Lev. 25:10). The bell was rung on July 8, 1776, for the first public reading of the Declaration of Independence. Hidden in Allentown during the British occupation of Philadelphia, it was replaced in Independence Hall in 1778 where it remains today. The bell cracked on July 8, 1835, while tolling the death of Chief Justice John Marshall.

THE UNITED STATES ARMED SERVICES

U. S. MILITARY ACADEMY

Source: U. S. Military Academy.

Established in 1802 by an Act of Congress, the U. S. Military Academy is located on the west bank of the Hudson River some 50 miles north of New York City. Admission may be gained only by appointment to one of the 2,496 cadetships authorized by law. These cadetships are allocated among the following sources of nomination:

Noncompetitive:		
Representatives (4 each)		1,740
Senators (4 each)		384
Other:		
Hawaii and Alaska	8	
District of Columbia	6	
Canal Zone Government	2	
Puerto Rico	4	
Vice Presidential	3	23
Competitive:		
Army and Air Force:		
Regular components		90
Reserve components		90
Presidential		89
Sons of deceased veterans		40
Honor military & honor naval schools		40
Total		2,496

Graduation of the senior class leaves about 750 vacant cadetships each year, and candidates may be nominated for these vacancies during the year preceding the admission date—the first Tuesday in July.

Candidates must be citizens of the U. S., between the ages of 17 and 22, unmarried, 5'6" to 6'6" tall and able to meet the mental, physical and physical aptitude requirements. Candidates with acceptable college records may qualify mentally by satisfactory performance on the College Entrance Examination Board's Scholastic Aptitude Test; all other candidates take the CEEB's Scholastic Aptitude Test and achievement tests in intermediate mathematics and English composition. Entrance requirements and procedures for appointment are described in the U. S. Military Academy Catalog, available without charge from The Registrar, U. S. Military Academy, West Point, N. Y.

Cadets receive their entire education at Government expense and are paid $111.15 per month. From this sum, they pay for their meals, uniforms, textbooks, etc. Upon successful completion of the 4-year course, the graduate receives the degree of Bachelor of Science and is commissioned a second lieutenant in the regular Army or Air Force. He must serve at least 3 years. If he resigns then, he must serve an additional 3 years in the Reserves.

U. S. NAVAL ACADEMY

Source: U. S. Naval Academy.

On October 10, 1845, the Naval School was established at Fort Severn, Annapolis, Maryland. Five years later it was renamed the United States Naval Academy, and the following year a regular four-year course was adopted. At present, the curriculum consists of courses in the following departments: executive; seamanship and navigation; ordnance and gunnery; marine engineering; aviation; electrical engineering; mathematics; English, history and government; foreign languages; hygiene; and physical training.

Candidates are selected as follows:

- 5 from the District of Columbia
- 40 sons of men and women killed in action or who have died, or may hereafter die of wounds or injuries, or disease contracted, in active service in World Wars I and II and other periods.
- 75 annually from among sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard.
- 160 enlisted Navy and Marine personnel selected annually by competitive examination
- 160 annually chosen by the Secretary of the Navy from the Naval and Marine Corps Reserves
- 5 Puerto Ricans chosen by the Resident Commissioner of Puerto Rico
- 1 on the recommendation of the Governor of Puerto Rico
- 4 Filipinos designated by the President of the United States
- 1 from the Canal Zone
- 20 annually from schools designated by the Army and Navy as honor schools and from NROTC schools.
- 20 from the American republics and the Dominion of Canada
- Unlimited: Sons of persons who have been or shall hereafter be awarded the Congressional Medal of Honor.

Each Senator, Representative, delegate to Congress, and the Vice President may have not more than 5 Midshipmen at the Naval Academy. The Board of Commissioners selects the 5 from the District of Columbia. The President selects the 40 sons of deceased veterans of World Wars and the 75 sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard. The President also appoints the sons of holders of the Medal of Honor.

Subject to the existence of vacancies and the availability of accommodations, the Secretary of the Navy may nominate for appointment a limited number of additional candidates. These must be recommended by the Academic Board from among the fully qualified, regularly nominated alternate and competitive candidates of the same year who were unable to enter because of the appointment of men preceding them in nomination.

Candidates for admission must be be-

tween 17 and 22 years of age on July 1 of their entering year. They may qualify by taking entrance examinations, by presenting an acceptable secondary school certificate and taking special examinations in English and mathematics, or by completing a sufficient number of acceptable college courses. Candidates must meet physical requirements and be unmarried.

Midshipmen are paid $1,333.80 a year. Graduates of the Academy are granted Bachelor of Science degrees and are commissioned as ensigns in the Navy or second lieutenants in the Marine Corps. In addition, a limited number of the members of graduating classes may be commissioned in the U. S. Air Force.

U. S. COAST GUARD ACADEMY

Source: U. S. Coast Guard Academy.

The cadet system of the Coast Guard was established by law on July 31, 1876, when the "School of Instruction" for the Revenue Cutter Service, predecessor to the Coast Guard, was authorized.

The *J. C. Dobbin,* a converted schooner, served as the first schoolship, and was succeeded in 1878 by the bark *Chase,* a ship built for cadet training. First winter quarters were in a sail loft at New Bedford, Mass. The school was moved in 1900 to a two-story frame school at Curtis Bay, Md., to provide a more technical education; and in 1910 to Fort Trumbull, New London, Conn. In 1932 the Academy moved to its present site in the latter city.

The 4-year college-level curriculum leads to a Bachelor of Science degree in Engineering and to a commission of ensign in the U. S. Coast Guard.

Cadets receive appointment to the Academy through a nation-wide competitive examination, held annually in February. Candidates must be between 17 and 22 years of age, physically sound, unmarried and at least 5′ 6″ tall. They must agree to remain unmarried until graduation and to serve at least 4 years on active duty. Cadets receive $1,333.80 per annum to cover their uniform and incidental expenses, and are furnished their rations and quarters. Applications for appointment may be made to the Commandant (PTP), U. S. Coast Guard, Washington 25, D. C.

U. S. MERCHANT MARINE ACADEMY

Source: U.S. Merchant Marine Academy.

The U. S. Merchant Marine Cadet Corps was established Mar. 15, 1938, and its Academy is located on the south shore of Long Island Sound at Kings Point, N. Y. The Academy has a complement of 800 cadet-midshipmen representing every U. S. state, D. C., Alaska, the Canal Zone, Hawaii, and Puerto Rico. In addition, it is authorized to receive each year, for the full period of training, not more than 12 candidates from Latin American republics.

Appointments to the Academy are governed by a state and territory quota system, based on population, and are made through competitive examinations. A candidate must be an unmarried citizen between 17 and 21, with a one-year age waiver granted to veterans. He must have 15 high-school credits, including 1 unit in algebra, 1 in plane geometry, 1 in physics, and 3 in English.

The course is 4 years, consisting of 1 year as Fourth Classman at the Academy, 1 year as Third Classman aboard a merchant ship, and 2 years as Second and First Classman at the Academy. Study includes marine engineering, navigation, electricity, ship construction, naval science and tactics, economics, business, languages, history, and other subjects.

On completion of their courses, cadet-midshipmen are examined for their original Merchant Marine license as deck or engineer officers in any ship in the U. S. Merchant Marine. They also receive Bachelor of Science degrees and commissions as officers in the U. S. Maritime Service and the U. S. Naval Reserve. Over 9,000 officers have been graduated.

U. S. AIR FORCE ACADEMY

Source: U. S. Air Force Academy.

The bill establishing the Air Force Academy was signed by President Eisenhower on Apr. 1, 1954. The first class of 306 cadets was sworn in on July 11, 1955, at Lowry Air Force Base, Denver, Colo., the Academy's temporary location. Permanent headquarters, at Colorado Springs, Colo., are expected to be completed in 1957.

Eventually the Academy will have a complement of about 2,500 cadets chosen through 58 separate competitions. Qualified sons of Medal of Honor winners will be admitted in addition to the number of competitive vacancies.

Candidates must be citizens of the U. S. between 17 and 22, unmarried, at least 5′ 4″ and less than 6′ 4″ tall and able to meet the mental and physical requirements. A candidate is required to take the following examinations and tests: (1) The Air Force Medical Examination for Flying Training; (2) The Air Force Pilot Aptitude and Officer Quality Test; (3) The College Entrance Examination Board Tests.

Cadets receive their entire education at Government expense and, in addition, are paid $81.12 per month. From this sum they pay for their meals, uniforms, text books, etc. Upon completion of the prescribed 4-year course of instruction, leading to a baccalaureate degree, a cadet who meets the physical qualifications is appointed a second lieutenant in the regular U. S. Air Force.

History of the Armed Services

Source: Encyclopaedia Britannica.

U. S. ARMY

When Gen. Washington, on July 3, 1775, took command of the Colonial militia (about 8,000 men) besieging Boston, the event marked the union of the forces of the 13 separate Colonies under one head, and the U. S. Army was born. In Jan., 1776, the Continental Congress decided that these troops should be separate in organization from those of local communities and established them as the U. S. Regular Army. When these forces were disbanded after the war only some 80 officers and men were retained to guard U. S. Army stores. From this humble beginning, in the ensuing years, the strength of the U. S. Army rose or fell according to national and international conditions.

U. S. NAVY

In Sept. and Oct., 1775, Gen. Washington maintained 5 schooners and a sloop with officers and men from his army for the purpose of preying on inbound English supply vessels and thereby caused the birth of the U. S. Navy. In Dec., 1775, the Continental Congress expanded this by providing for construction of naval craft and the appointment of a marine committee (one member from each colony) which continued until 1794 when further ships and manpower were provided for by act of Congress. Upon completion of these ships in 1798, a Navy Department was established as the controlling agency, and the secretary given Cabinet rank.

U. S. AIR FORCE

Until creation of the National Military Establishment in July 1947, which united the services under one command, U. S. military air forces operated under the several commands. In the Army, operations came under the Signal Corps until 1918, when the U. S. Air Service was established. In 1926, the U. S. Air Corps came into being and remained until 1942 when the Army Air Forces were formed, composed of the U. S. Air Corps and its supporting services.

In the Navy, ship-based fighters and bombers were originally attached to the several fleets and under the orders of the fleet commanders. Marine Corps aviation came under control of the Navy.

In 1947, the U. S. Air Force was established as an autonomous arm of the Armed Forces. At that time, the name U. S. Air Corps and the names of the services within the Army Air Forces were abolished.

U. S. COAST GUARD

This service was originally created by an act of Congress approved on Jan. 28, 1915, which combined the then Revenue Cutter Service and the Life-Saving Service. On July 1, 1939, the Lighthouse Service of the Department of Commerce was also consolidated into this unit. The Coast Guard, through its antecedents, is the oldest organization under the Federal government and, until the Navy Department was established in 1798, it served as the only U. S. armed force afloat. It operates under the Treasury Department in time of peace, serving in the capacity of life and property saving, prevention of smuggling, clearance of debris in harbors, maintaining an ice patrol in northern waters, flood service, etc. In time of war it is attached to the Navy Department, and in the recent conflict, it performed admirable service.

U. S. MARINE CORPS

Founded in 1775 and observing its official birthday on Nov. 10, the U. S. Marine Corps was developed to be able to serve to advantage on land or sea.

It has been used successfully in every U. S. war beginning with the Revolution when it consisted of 2 battalions. It reached its high in achievement in the recent war when its some 475,000 men and officers performed historic deeds in the Pacific Theater of Operations.

Selective Service Classifications

I-A: Available for immediate service.

I-A-O: Conscientious objector available for non-combatant military service.

I-C: Members of the armed forces, Coast Guard, Coast and Geodetic Survey or Public Health Service or certain registrants separated therefrom.

I-D: Members of reserve components or student taking military training.

II-A: Registrant deferred because of civilian occupation (except agriculture).

II-C: Deferred because of agricultural occupation.

III-A: Registrant with dependents.

IV-A: Registrant who has completed service; sole surviving son of parents whose other child or children died in World War II.

IV-B: Officials deferred by law.

IV-C: Aliens.

IV-D: Ministers of religion or divinity students.

IV-E: Conscientious objectors opposed to combatant and non-combatant training and service.

IV-F: Physically, mentally or morally unfit.

V-A: Registrant over age of liability for military service.

U. S. Armed Forces Monthly Pay Rates for Officers

Source: Department of Defense, Public Information Office.

Rank				Monthly allowances for quarters	
Army, Air Force and Marine Corps	Navy, Coast Guard and Coast and Geodetic Survey	Pay grade	Monthly pay	With dependents	With no dependents
General of the Army	Fleet Admiral	O-8	$963.30	$171.00	$136.80
General	Admiral	O-8	963.30	171.00	136.80
Lieutenant General	Vice Admiral	O-8	963.30	171.00	136.80
Major General	Rear Admiral (upper half)	O-8	963.30	171.00	136.80
Brigadier General	Rear Admiral (lower half) and Commodore	O-7	800.28	171.00	136.80
Colonel	Captain	O-6	592.80	136.80	119.70
Lieutenant Colonel	Commander	O-5	474.24	136.80	102.60
Major	Lieutenant Commander	O-4	400.14	119.70	94.20
Captain	Lieutenant	O-3	326.04	102.60	85.50
First Lieutenant	Lieutenant (junior grade)	O-2	259.36	94.20	77.10
Second Lieutenant	Ensign	O-1	222.30	85.50	68.40
Chief Warrant Officer	Chief Warrant Officer	W-4	332.90	119.70	94.20
Same	Same	W-3	302.64	102.60	85.50
Chief Warrant Officer	Same	W-2	264.82	94.20	77.10
Warrant Officer (junior grade)	Warrant Officer	W-1	219.42	85.50	68.40

Special Pay for Longevity

(Amounts listed below are monthly increases in the basic pay for longevity of service)

O–8—$58.50 after 3 years; $54.60 after 30 years.

O–7—$49.92 after 3 years; $50.60 after 26; $62.40 after 30.

O–6—$38.00 after 3 years; $23.40 after 16; $62.40 after 18; $31.20 after 22, 26 and 30 years.

O–5—$32.76 after 3 years; $23.40 after 12; $31.20 after 14; $46.60 after 16; $31.20 after 18, 22 and 26 years.

O–4—$28.86 after 3 years; $23.40 after 8; $31.20 after 10; $15.60 after 12, 14 and 16; $31.20 after 18; $15.60 after 22 and 26 years.

O–3—$24.96 after 3 years; $23.40 after 4; $31.20 after 6; $15.60 after 8, 10, 12, 14, 16, 18 and 22 years.

O–2—$14.82 after 2 years; $61.22 after 3; $15.60 after 6, 8, 10, 12 and 14 years.

O–1—$14.82 after 2 years; $59.28 after 3; $15.60 after 6, 8, 10, 12 and 14 years.

W–4—$22.00 after 2 years; $15.60 after 6, 8 and 10; $19.50 after 12; $31.20 after 14; $15.60 after 16, 18, 22, 26 and 30 years.

W–3—$21.06 after 2 years; $7.80 after 6, 8 and 10; $11.70 after 12; $15.60 after 14; $7.80 after 16; $23.40 after 18; $22.40 after 22; $15.60 after 26 and 30 years.

W–2—$15.98 after 2 years; $7.80 after 6; $15.60 after 8, 10, and 12; $14.60 after 14; $7.80 after 16; $15.60 after 18, 22, 26 and 30 years.

W–1—$31.78 after 2 years; $15.60 after 6; $19.50 after 8; $7.80 after 10; $11.70 after 12; $7.80 after 14 and 16; $15.60 after 18, 22 and 26 years.

Insignia and Ranks of the Armed Forces

Army, Air Force and Marines		Navy and Coast Guard		
Insignia	Rank	Insignia	Rank	Stripes[1]
Five stars	General of the Army, Air Force	Five stars	Fleet Admiral	1—4—0
Four stars	General	Four stars	Admiral	1—3—0
Three stars	Lieutenant General	Three stars	Vice Admiral	1—2—0
Two stars	Major General	Two stars	Rear Admiral	1—1—0
One star	Brigadier General	One star	Commodore	1—0—0[2]
Silver eagle	Colonel	Silver eagle	Captain	0—4—0
Silver maple leaf	Lieutenant Colonel	Silver maple leaf	Commander	0—3—0
Gold maple leaf	Major	Gold maple leaf	Lt. Commander	0—2—1
Two silver bars	Captain	Two silver bars	Lieutenant	0—2—0
One silver bar	First Lieutenant	One silver bar	Lieutenant (jg)	0—1—1
One gold bar	Second Lieutenant	One gold bar	Ensign	0—1—0
Gold bar with rounded ends, brown-enamel top, longitudinal center of gold (⅜" wide x 1" long)	Chief Warrant Officer, Commissioned Warrant Officer (Marines)	Warrant specialty in silver	Commissioned Warrant Officer	0—1—0[3]
Same as Chief Warrant Officer but with latitudinal center of gold	Warrant Officer (jg)	Warrant specialty in gold	Warrant Officer	0—0—1[3]

[1] Of gold embroidery. First figure is number of 2-in stripes; second is number of ½-in. stripes; third is number of ¼-in. stripes. [2] Wartime only. [3] Broken at 2-in intervals with ½ in. of blue.

U. S. Armed Forces Monthly Pay Rates for Enlisted Personnel

Source: Department of Defense, Public Information Office.

Army rank	Air Force rank	Marine rank	Navy rank	Pay grade	Monthly pay
Master Sergeant	Master Sergeant	Master Sergeant	Chief Petty Officer	E-7	$206.39
Sergeant 1st Class	Technical Sergeant	Technical Sergeant	Petty Officer 1st Class	E-6	175.81
Sergeant	Staff Sergeant	Staff Sergeant	Petty Officer 2nd Class	E-5	145.24
Corporal	Airman 1st Class	Sergeant	Petty Officer 3rd Class	E-4	122.30
Private 1st Class	Airman 2nd Class	Marine Corporal	Navy Seaman	E-3	99.37
Private of the Army	Airman 3rd Class	Pvt. 1st Class Marine	Seaman Apprentice	E-2	85.80
Army Recruit*	Airman, Basic*	Private*	Seaman Recruit*	E-1	83.20
Army Recruit†	Airman, Basic†	Private†	Seaman Recruit†	E-1	78.00

* With over 4 months' service. † With less than 4 months' service.

BASIC MONTHLY ALLOWANCE FOR QUARTERS: No dependents, $51.30 for all pay grades; 1 dependent, $51.30 for pay grades E-1 through E-3, $77.10 for pay grades E-4 through E-7; 2 dependents, $77.10 for all pay grades; over 2 dependents, $96.90 for all pay grades.

Special Pay for Longevity

(Amounts listed below are monthly increases in the basic pay for longevity of service)

E–7—$15.91 after 2 years; $7.80 after 4 and 6; $15.60 after 8; $7.80 after 10; $11.70 after 12; $7.80 after 14 and 16; $15.60 after 18, 22 and 26 years.

E–6—$11.91 after 2 years; $7.80 after 4; $19.50 after 6; $7.80 after 8; $11.70 after 10; $7.80 after 12, 14 and 16; $15.60 after 18 and 22 years.

E–5—$18.56 after 2 years; $19.50 after 4; $7.80 after 6; $11.70 after 8; $7.80 after 10, 12, 14, 16 and 18; $15.70 after 22 years.

E–4—$18.10 after 2 years; $19.50 after 4; $7.80 after 6; $11.70 after 8; $7.80 after 10, 12, 14, 16 and 18 years.

E–3—$17.63 after 2 years; $15.60 after 4; $7.80 after 6, 8 and 10; $3.90 after 12 and 14 years.

E–2—$15.60 after 2 years; $7.80 after 4, 6, 8 and 10 years.

E–1—$15.60 after 2 years; $7.80 after 4 years.*

* For first 4 months service, pay is based at $78.00 a month, after that it is $83.20.

Hazard Pay Rates

Members of the uniformed services are entitled to receive special pay (*see* p. 346) for the performance of certain duties required by competent orders.

Hazardous duty includes:

1. Frequent and regular participation in aerial flights not as a crew member.

2. Frequent and regular participation in glider flights.

3. Parachute jumping as part of duty.

4. Demolition of explosives as a primary duty, including training for such duty.

5. Duty at a submarine escape training tank when such duty involves participation in training.

6. Duty at Navy Deep Sea Diving School or Navy experimental diving unit when it involves participation in training.

Medical Officers

The monthly rate is $100 for pay grades O–2 through O–8.

Diving as in Salvage and Repair

The monthly rate is not less than $5 or more than $30, plus $5 for each diving hour spent in actual salvage or repair operations. This pay applies to pay grades E–1 through E–7 only.

Sea and Foreign Duty

Pay grade	Monthly rate	Pay grade	Monthly rate
E-7	$23.00	E-3	$9.00
E-6	20.00	E-2	8.00
E-5	16.00	E-1	8.00
E-4	13.00		

Korean Combat Pay

The monthly rate is $45 for all pay grades.

Service in Korea does not necessarily entitle a service member to combat pay. Generally, to be entitled to combat pay during a month, he must have been subjected to hostile fire for not less than 6 days during the month while serving with a combat unit of regimental size or smaller, or in a vessel or aircraft. However, if the member received incentive or special pay for aviation, submarine, parachute, medical or dental duty, etc., during a month, he is not entitled to combat pay for that month.

Hazard Pay Rates

(Include Flying and Submarine Pay)

Pay grade	Under 2 yrs.	Over 2 yrs.	Over 3 yrs.	Over 4 yrs.	Over 6 yrs.	Over 8 yrs.	Over 10 yrs.
O-8	$155.00	$155.00	$165.00	$165.00	$165.00	$165.00	$165.00
O-7	150.00	150.00	160.00	160.00	160.00	160.00	160.00
O-6	200.00	200.00	215.00	215.00	215.00	215.00	215.00
O-5	190.00	190.00	205.00	205.00	205.00	205.00	205.00
O-4	170.00	170.00	185.00	185.00	185.00	195.00	210.00
O-3	145.00	145.00	155.00	165.00	180.00	185.00	190.00
O-2	115.00	125.00	150.00	150.00	160.00	165.00	170.00
O-1	100.00	105.00	135.00	135.00	140.00	145.00	155.00
W-4	115.00	115.00	115.00	115.00	120.00	125.00	135.00
W-3	110.00	115.00	115.00	115.00	120.00	120.00	125.00
W-2	105.00	110.00	110.00	110.00	115.00	120.00	125.00
W-1	100.00	105.00	105.00	105.00	110.00	120.00	125.00
E-7	80.00	85.00	85.00	85.00	90.00	95.00	100.00
E-6	70.00	75.00	75.00	80.00	85.00	90.00	95.00
E-5	60.00	70.00	70.00	80.00	80.00	85.00	90.00
E-4	55.00	65.00	65.00	70.00	75.00	80.00	80.00
E-3	55.00	60.00	60.00	60.00	60.00	60.00	60.00
E-2	50.00	60.00	60.00	60.00	60.00	60.00	60.00
E-1	50.00	55.00	55.00	55.00	55.00	55.00	55.00

Pay grade	Over 12 yrs.	Over 14 yrs.	Over 16 yrs.	Over 18 yrs.	Over 22 yrs.	Over 26 yrs.	Over 30 yrs.
O-8	$165.00	$165.00	$165.00	$165.00	$165.00	$165.00	$165.00
O-7	160.00	160.00	160.00	160.00	160.00	160.00	160.00
O-6	215.00	215.00	220.00	245.00	245.00	245.00	245.00
O-5	210.00	225.00	230.00	245.00	245.00	245.00	245.00
O-4	215.00	220.00	230.00	240.00	240.00	240.00	240.00
O-3	200.00	205.00	205.00	205.00	205.00	205.00	205.00
O-2	180.00	185.00	185.00	185.00	185.00	185.00	185.00
O-1	160.00	170.00	170.00	170.00	170.00	170.00	170.00
W-4	145.00	155.00	160.00	165.00	165.00	165.00	165.00
W-3	135.00	140.00	140.00	140.00	140.00	140.00	140.00
W-2	130.00	135.00	135.00	135.00	135.00	135.00	135.00
W-1	130.00	130.00	130.00	130.00	130.00	130.00	130.00
E-7	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-6	95.00	100.00	100.00	100.00	100.00	100.00	100.00
E-5	95.00	95.00	95.00	95.00	95.00	95.00	95.00
E-4	80.00	80.00	80.00	80.00	80.00	80.00	80.00
E-3	60.00	60.00	60.00	60.00	60.00	60.00	60.00
E-2	60.00	60.00	60.00	60.00	60.00	60.00	60.00
E-1	55.00	55.00	55.00	55.00	55.00	55.00	55.00

Largest Armies of the World

Source: Encyclopaedia Britannica

Country	Army personnel[1]	Year	Country	Army personnel[1]	Year
Belgium	150,000	1951	Iran	130,000	(2)
Brazil	118,000	1948	Italy	250,000	(2)
Bulgaria	175,000	1953	Netherlands	175,000	1949
China (Communist)	5,000,000	1954	Pakistan	250,000	(2)
China (Nationalist)	600,000	1954	Poland	600,000	1953
Czechoslovakia	300,000	(2)	Rumania	350,000	1953
Egypt	160,000	(2)	Spain	425,000	(2)
France	608,000	1953	Turkey	400,000	1953
Greece	132,000	1948	U.S.S.R.	4,750,000	1954
Hungary	165,000	1952	United Kingdom	440,000	1954
India	300,000	1950	United States	1,530,000	1953
Indonesia	300,000	(2)	Yugoslavia	500,000	1951

[1] Estimated unless otherwise indicated. [2] Not specified.

ALLOWANCES FOR SUBSISTENCE

Officers receive $47.88 per month. Enlisted personnel receive allowances for subsistence under the following provisions: (1) when rations in kind are not available, $2.57 per day; (2) when permission to mess separately is granted, $1.20 per day; (3) when assigned to duty under emergency conditions where no government messing facilities are available, up to and not to exceed $3.42 per day.

U. S. Navy Combatant Vessels

Type	Number
Carriers	14
Light carriers and carrier escorts	13
Battleships	4
Cruisers	18
Destroyers and destroyer escorts	247
Submarines	110
Amphibious craft, mine and patrol ships, and auxiliaries	707
Total	1,113*

* In addition, there are 24 commissioned vessels in Military Sea Transportation Service.

Casualties of U. S. Major Wars

Source: Department of Defense.

War	Branch of service	Numbers engaged	Battle deaths	Other deaths	Total deaths	Wounds not mortal	Total casualties[1]
Revolutionary War 1775 to 1783	Army	.....	4,044	.....	.....	6,004	.....
	Navy	.....	342	.....	.....	114	.....
	Marines	.....	49	.....	.....	70	.....
	Total	.....	4,435	.....	.....	6,188	.....
War of 1812 1812 to 1815	Army	.....	1,950	.....	.....	4,000	.....
	Navy	.....	265	.....	.....	439	.....
	Marines	.....	45	.....	.....	66	.....
	Total	.....	2,260	.....	.....	4,505	.....
Mexican War 1846 to 1848	Army	.....	1,721	11,550	13,271	4,102	17,373
	Navy	.....	1	.....	.....	3	.....
	Marines	.....	11	.....	.....	47	.....
	Total	.....	1,733	.....	.....	4,152	.....
Civil War[2] 1861 to 1865	Army	.....	110,238	249,290	359,528	280,040	639,568
	Navy	.....	2,112	2,411	4,523	1,710	6,233
	Marines	.....	64	312	376	144	520
	Total	.....	112,414	252,013	384,427	281,894	646,321
Spanish-American War 1898	Army	280,564	345	2,565	2,910	1,512	4,422
	Navy	22,875	10	0	10	47	57
	Marines	3,321	6	0	6	21	27
	Total	306,760	361	2,565	2,926	1,580	4,506
World War I 1917 to 1918	Army	4,057,101	50,510	69,446	119,956	193,663	313,619
	Navy	473,262	436	7,285	7,721	884	8,605
	Marines	78,827	2,457	787	3,244	7,714	10,958
	Total	4,609,190	53,403	77,815	130,921	202,261	333,182
World War II 1941 to 1945	Army[3]	10,420,000	237,049	68,957	306,006	571,822	877,828
	Navy	4,424,557	36,488	23,618	60,106	32,754	92,860
	Marines	669,100	19,568	4,089	23,657	55,396	79,053
	Total	15,513,657	293,105	96,664	389,769	659,972	1,049,741

[1] Excludes captured or interned and missing in action who were subsequently returned to military control. [2] Union forces only. Totals should probably be somewhat larger as data on disposition of prisoners are far from complete. [3] Army data include Air Force. NOTE: All data are subject to revision. For wars before World War I, information represents best data from available records. However, due to incomplete records and possible differences in usage of terminology, reporting systems, etc., figures should be considered estimates. Leaders (.....) indicate that information is not available.

U. S. Casualties in Korea as of October, 1955

Total deaths: 33,629 (Army, 27,704; Navy, 458; Marine Corps, 4,267; Air Force, 1,200). **Wounded in action:** 103,284 (Army, 77,596; Navy, 1,576; Marine Corps, 23,744; Air Force, 368). **Current missing:** 9 from Navy. 11 Air Force fliers were released July 31, 1955. **Previously reported captured or missing, since returned to military control:** 5,137 (Army, 4,637; Navy, 44; Marine Corps, 194; Air Force, 262). NOTE: 21 captured Army personnel refused repatriation at the end of Korean War; 3 of the 21 returned to the U. S. July 10, 1955.

Casualties in World War II

(U. S. figures are to be found on p. 347)

Country	Men in war	Battle deaths	Other deaths	Wounded	Still missing
Australia	1,000,000	26,951	6,875	180,864	(1)
Austria	800,000	280,000	24,000	350,117	122,000
Belgium	.....	8,460	40,564[2]	.....	.....
Brazil[9]	40,334	943	32	4,222	.....
Bulgaria	.....	30,000[3]	.....	.....	.....
Canada	1,031,820	32,408	9,635	53,145	0
China[4]	.....	1,319,958	.....	1,761,335	130,126
Czechoslovakia	.....	6,683[3]	.....	8,017	.....
Denmark	.....	6,300[3]	.....	.....	.....
Finland	500,000	76,893	1,961	.....	6,000
France	.....	201,568	261,577	400,000	140,000
Germany	20,000,000	3,250,000[3]	3,350,000	7,250,000	1,300,000
Greece	.....	17,024	391,000[5]	47,290	.....
Hungary	.....	147,435	.....	89,313	125,556
India	2,000,000	24,338[3]	.....	64,354	.....
Italy	3,100,000	135,723	174,517	.....	144,505
Japan	9,700,000	1,270,000	620,000	140,000	85,000
Netherlands	.....	280,000[3]	.....	.....	.....
New Zealand	194,000	11,625[3]	.....	17,000	46[6]
Norway	75,000	2,000	8,262	.....	0
Poland	.....	664,000	5,380,000	1,600,000	.....
Rumania	650,000[7]	350,000[8]	.....	.....	180,000
South Africa, Union of	302,128	6,840	4,005	14,363	1,841
U.S.S.R.	.....	6,115,000[3]	.....	14,012,000	.....
United Kingdom	5,896,000	357,116[3]	.....	369,267	46,079
Yugoslavia	3,741,000	305,000	1,401,000	425,000	.....

[1] Up-to-date figures not available; 2,475 in 1946. [2] Also 20,000 Jews and non-Belgians living in Belgium. [3] Deaths from all causes. [4] Figures cover period July 7, 1937–Sept. 2, 1945, and concern only Chinese regular troops. They do not include casualties suffered by guerrillas and local military corps. [5] Includes 261,000 dead of starvation. [6] As of Dec. 31, 1946. [7] Against Soviet Russia; 385,847 against Nazi Germany. [8] Against Soviet Russia; 169,822 against Nazi Germany. Figures include all deaths, wounded, and missing. [9] Army and Navy figures.

U. S. Armed Forces Personnel

Source: U. S. Department of Defense.

Year	Army*	Air Force*	Navy	Marines	Coast Guard‡	Men†	Women
1934	137,584	.....	92,312	16,361	9,985	245,299	958
1935	138,569	.....	95,053	17,260	10,303	249,947	935
1936	166,724	.....	106,292	17,248	9,545	289,311	953
1937	178,733	.....	113,617	18,223	10,066	309,556	1,017
1938	184,126	.....	119,088	18,356	9,968	320,472	1,098
1939	188,565	.....	125,202	19,432	10,064	332,089	1,110
1940	267,767	.....	160,997	28,277	13,621	455,660	1,381
1941	1,460,998	.....	284,427	54,359	19,036	1,793,680	6,104
1942	3,074,184	.....	640,570	142,613	58,998	3,902,112	14,253
1943	6,993,102	.....	1,741,750	308,523	154,976	9,068,994	129,357
1944	7,992,868	.....	2,981,365	475,604	169,264	11,400,450	218,651
1945	8,266,373	.....	3,380,817	474,680	171,518	12,018,974	274,414
1946	1,889,690	.....	983,398	155,592	29,736	2,970,688	57,992
1947	989,664	.....	486,245	92,222	18,972	1,548,472	19,659
1948	552,239	387,730	405,789	83,609	19,929	1,415,216	14,151
1949	658,694	419,347	448,500	86,000	23,326	1,594,481	18,060
1950	593,167	411,277	381,538	74,279	23,190	1,438,206	22,055
1951	1,552,000	850,000	740,000	204,000	29,000	3,420,000	40,000
1952	1,653,000	939,000	801,000	237,000	34,000	3,624,703	45,964
1953	1,533,815	977,593	794,440	249,219	34,148	3,543,730	45,512
1954	1,404,598	947,918	725,720	214,797	28,444	3,291,948	38,622

* Prior to July 26, 1947, when the National Military Establishment was established, the Air Force was a part of the Army. † Not including the men in the Coast Guard during peacetime. ‡ From 1942 to and including 1945, the Coast Guard was part of the Navy; in peacetime it is attached to the Treasury Department.

NOTE: On June 30, 1955, the estimated strength of the Armed Forces was: Army, 1,101,800; Navy, 672,353; Air Force, 970,000; Marines, 205,000; Coast Guard, 27,430.

Casualties in World War I

Source: Department of Defense.

(U. S. figures are to be found on p. 347)

	Total mobilized forces	Killed or died[1]	Wounded	Prisoners or missing	Total casualties
Austria-Hungary	7,800,000	1,200,000	3,620,000	2,200,000	7,020,000
Belgium	267,000	13,716	44,686	34,659	93,061
British Empire[2]	8,904,467	908,371	2,090,212	191,652	3,190,235
Bulgaria	1,200,000	87,500	152,390	27,029	266,919
France[2]	8,410,000	1,357,800	4,266,000	537,000	6,160,800
Germany	11,000,000	1,773,700	4,216,058	1,152,800	7,142,558
Greece	230,000	5,000	21,000	1,000	27,000
Italy	5,615,000	650,000	947,000	600,000	2,197,000
Japan	800,000	300	907	3	1,210
Montenegro	50,000	3,000	10,000	7,000	20,000
Portugal	100,000	7,222	13,751	12,318	33,291
Rumania	750,000	335,706	120,000	80,000	535,706
Russia	12,000,000	1,700,000	4,950,000	2,500,000	9,150,000
Serbia	707,343	45,000	133,148	152,958	331,106
Turkey	2,850,000	325,000	400,000	250,000	975,000

[1] Includes deaths from all causes. [2] Official figures.

Veterans' Benefits

Veterans of World War I were the first in our history to receive compensation for injuries, allotments for the support of dependents, life insurance, medical care and vocational rehabilitation. Beginning with 1940, these benefits were slowly broadened.

The following benefits available to veterans of World War II and the Korean War have specific time limitations and, in most cases, are applicable only to those whose discharge was not under dishonorable conditions.

Education and Training: *Veterans of World War II:* For a period of 1 year plus the time in service up to 4 years, the VA pays $500 a year toward all tuition, books, etc., and a monthly subsistence allowance varying from $65 to $120, depending on the nature of the training and the number of the veteran's dependents.

Veterans of the Korean War: For a maximum period of 1½ times the duration of active service, not exceeding 36 months, the VA pays sums varying from $110 to $160 per month toward subsistence, tuition, supplies, etc.

Re-employment: The veteran is to be reinstated in the same position or an equivalent one unless, in the case of a private employer, changed circumstances make this impossible.

Loans: Only loans for the purchase or construction of a home, to buy a farm and farm equipment or business property and equipment, are permissible. The VA will guarantee the lender against loss up to 60% of a home loan with a maximum of $7,500. On other loans, the guarantee is up to 50% with a maximum of $4,000 involving real estate and $2,000 on non-real estate loans. The interest rate in all cases must not exceed 4½% per year.

The following benefits are also available to those having some service-connected illness or disability:

Disability Compensation: The VA pays from $17 to $181 per month with additional sums for specific conditions up to $420 per month, plus allowances for wife, children or dependent parents.

Vocational rehabilitation: Necessary training expenses, special equipment, etc., toward a definite job objective are paid for, plus a monthly allowance varying from $65 to $120 in addition to compensation.

Medical and dental care: This includes complete care in VA or certain other Federal hospitals. It also covers treatment (not requiring hospitalization) at a VA field station or by an approved private physician or dentist. Medicine, instruments, appliances, mechanical equipment, etc., are supplied. Full domiciliary care is also provided where necessary.

Death benefits: Up to $10,000 of GI Insurance may be paid to the beneficiaries of deceased veterans. Compensation to a widow is $75 per month, with an allowance for each child.

NOTE: Since our space has permitted only a general statement of the principal benefits available to veterans, the reader is referred to his local office of the Veterans' Administration (VA) for detailed information.

U. S. Postal Regulations

Source: U. S. Post Office.

FIRST CLASS:

Letters and written and sealed matter: 3¢ for each oz., except that drop letters are subject to 2¢ for each oz. when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

Government postal cards: single, 2¢; double, 4¢.

Private mailing or post cards: 2¢.

Limit of weight when mailed from one first-class post office to another: 40 lb. in local, first and second zones, 20 lb. in third to eighth zones.

Limit of weight when mailed to or from second-, third- and fourth-class post offices: 70 lb.

AIR MAIL (LIMIT 8 OZ.):

6¢ for each oz. or fraction thereof within the continental U. S., within any Territory or possession of the U. S., or between any of the foregoing. This includes air mail to or from Alaska, Hawii, Puerto Rico, Virgin Islands of the U. S., Canton Island, Canal Zone, Guam and any other place where the U. S. mail service is in operation.

AIR PARCEL POST (OVER 8 OZ. TO 70 LB.):

The zone rates below shall apply to mailable matter of any class carried by air. Such matter shall not exceed 100 in. in length and girth combined, including written and other matter of the first class, whether sealed or unsealed. Fractions of a lb. are charged as a full lb.

Parcels weighing less than 10 lb. and measuring more than 84 in., but not more than 100 in. in length and girth combined, shall be subject to the 10-lb. rate.

Air Parcel-Post Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
First, Second & Third (to 300)	60¢	48¢
Fourth (300–600)	65¢	50¢
Fifth (600–1,000)	70¢	56¢
Sixth (1,000–1,400)	75¢	64¢
Seventh (1,400–1,800)	75¢	72¢
Eighth (over 1,800)	80¢	80¢

The eighth-zone rate shall be charged on air parcel post between the U. S. or its Territories and possessions and overseas A.P.O.'s and Fleet post offices, as well as naval vessels and commands afloat addressed in care of Fleet post offices at New York or San Francisco.

Air parcels mailed at New York, N. Y., and addressed to Puerto Rico and the Virgin Is. are subject to the seventh-zone rate.

SECOND CLASS (NO WEIGHT LIMIT):

Newspapers, magazines and other periodicals containing notice of second-class entry.

For rates for publications mailed by the publishers or registered news agents, consult local postmaster.

Transient rate for matter mailed by others than the publishers or registered news agents: 2¢ for the first 2 oz., 1¢ for each additional 2 oz. However, if the fourth-class rate is cheaper, it shall apply.

THIRD CLASS (LIMIT 8 OZ.):

Merchandise, books, printed matter and all other mailable matter not in first or second class.

Regular rate: 2¢ for the first 2 oz., 1¢ for each additional oz. Books and catalogs of 24 pages or more, seeds, cuttings, bulbs, etc.: 2¢ for the first 2 oz., 1½¢ for each additional 2 oz.

Bulk rate: for $10 per year or fraction thereof, separately addressed identical pieces of third-class matter in quantities of not less than 20 lb. or of not less than 200 pieces are subject to the lb. rates of postage applicable to the entire bulk mailed at one time.

The bulk rate for miscellaneous printed matter, etc. is 14¢ for each lb., with a minimum charge of 1½¢ per piece. For books and catalogs of 24 pages or more, seeds, etc., the rate is 10¢ for each lb., with a minimum charge of 1½¢ per piece.

Pieces of such size or form as to prevent ready facing and tying in bundles and requiring individual distributing throughout are subject to a minimum charge of 3¢ each.

FOURTH CLASS (PARCEL POST) (OVER 8 OZ.):

Merchandise, books, printed matter and all other mailable matter not in first or second class.

The zone rates below shall apply to fourth-class matter, except catalogs, books, library books, publications or records for the blind, and certain controlled circulation publications.

Limit of size*: 72 in. in length and girth combined.

Limit of weight*: over 8 oz. to 40 lb. in local, first and second zones, over 8 oz. to 20 lb. in third to eighth zones.

Note: The following five items have a size limit of 100 in. in length and girth

* When mailed from one first-class post office to another.

combined, a weight limit of over 8 oz. to 70 lb.: (1) parcels sent to or from rural or star routes; (2) parcels sent to or from second-, third-, and fourth-class post offices; (3) parcels containing baby fowl, live plants, trees, shrubs, or agricultural commodities (not including manufactured products thereof); (4) parcels containing books; (5) parcels mailed between the U. S. and any Army or Fleet post office or between the U. S. and any Territory or possession of the U. S.

Fourth-Class Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
Local	$.18	$.0145
First & Second (to 150)*	.23	.0395
Third (150–300)	.23	.0515
Fourth (300–600)	.24	.0690
Fifth (600–1,000)	.26	.0925
Sixth (1,000–1,400)	.28	.1195
Seventh (1,400–1,800)	.30	.1520
Eighth (over 1,800)	.32	.1805

* In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

The zone rates below shall apply to individually addressed catalogs and similar printed advertising matter in bound form weighing more than 8 oz. but not exceeding 10 lb.

Catalog Zone Rates*

Zone and (miles)	First lb.	Addl. half-lbs.
Local	$.12	$.0075
First & Second (to 150)†	.13	.0150
Third (150–300)	.14	.0200
Fourth (300–600)	.15	.0250
Fifth (600–1,000)	.17	.0325
Sixth (1,000–1,400)	.18	.0400
Seventh (1,400–1,800)	.19	.0500
Eighth (over 1,800)	.20	.0600

* Fractions of one-half cent or less are counted as one-half cent; fractions of a cent exceeding one-half cent are counted as one cent in the total amount.
† In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

BOOKS (LIMIT 70 LB.):

Books (containing no advertising matter other than incidental announcements of books) for all zones: 8¢ first lb., 4¢ each additional lb.

LIBRARY BOOKS (LIMIT 70 LB.):

Books sent by authorized libraries to readers and when returned by such readers, for delivery within the first three zones or the state in which mailed: 4¢ first lb., 1¢ each additional lb.

SPECIAL DELIVERY AND SPECIAL HANDLING:

The prepayment of the special-delivery fee entitles mail to the most expeditious handling and special delivery.

Prepayment of the special-handling fee entitles fourth-class matter to the most expeditious handling, transportation and delivery possible, but not special delivery.

Special Delivery and Special Handling

Weight	Special delivery: First class	Special delivery: 2nd, 3rd, 4th class	Special handling (4th class only)
Up to 2 lb.	20¢	35¢	15¢
2 to 10 lb.	35¢	45¢	20¢
Over 10 lb.	50¢	60¢	25¢

MONEY ORDERS:

Money orders for amounts from 1¢ to $100 are issued upon written application* made by the remitter or his agent showing the amount of the order and the names and addresses of payee and remitter.

Amount of order	Fee
$ .01 to $ 5.00	10¢
5.01 to 10.00	15¢
10.01 to 50.00	25¢
50.01 to 100.00	35¢

* As of Oct. 1, 1955, 1st- and 2nd-class post offices will issue money orders without written application.

REGISTERED MAIL:

Fees for domestic registered mail (first-, second- and third-class matter, and sealed fourth-class matter on which postage at the first-class rate has been paid):

Indemnity limit	Fee
$ .01 to $ 5.00	.40
5.01 to 25.00	.55
25.01 to 50.00	.65
50.01 to 75.00	.75
75.01 to 100.00	.85
100.01 to 200.00	.95
200.01 to 300.00	1.05
300.01 to 400.00	1.15
400.01 to 500.00	1.25
500.01 to 600.00	1.35
600.01 to 700.00	1.45
700.01 to 800.00	1.55
800.01 to 900.00	1.65
900.01 to 1000.00	1.75

When the declared value exceeds the maximum indemnity covered by the registry fee by $1,000 or more, there shall be charged additional fees (surcharges). The additional fees (surcharges) for each $1,000 or part of $1,000 on articles destined to points within the several zones applicable to fourth-class matter shall be as follows:

Zone	Fee
For local delivery or for delivery within 1st zone	12¢
For delivery within 2nd zone	14¢
For delivery within 3rd zone	16¢
For delivery within 4th zone	17¢
For delivery within 5th or 6th zones	18¢
For delivery within 7th or 8th zones	19¢

Restricted delivery, 20¢. Return receipts: showing to whom and when delivered, 7¢; to whom, when and address where delivered, 31¢; requested after mailing, showing to whom and when delivered, 15¢.

CERTIFIED MAIL:

Certified mail service provides for a receipt to the sender and a record of delivery at the office of address. No record is kept at the office where mailed. It is handled in the ordinary mails and no insurance coverage is provided.

Only first-class mail having no value will be accepted as certified mail. This does not exclude articles of a non-negotiable character and other matter which would involve a cost of duplication if lost or destroyed. The mail may be sent by air on payment of the required postage. Return receipt service requested at the time of mailing only, and special delivery service are available.

Fees are as follows: Fee in addition to postage, 15¢; return receipt showing to whom and when delivered, 7¢; return receipt showing to whom, when, and address where delivered, 31¢; inquiry fee, 10¢; restricted delivery, 20¢.

INSURED MAIL:

Fee for insured mail (savings bonds, stubs, etc.) treated as registered mail under special authorization by the Department: 20¢.

Fees for domestic insured mail (third- and fourth-class matter):

Indemnity limit	Fee
$ .01 to $ 5.00	5¢
5.01 to 10.00	10¢
10.01 to 25.00	15¢
25.01 to 50.00	20¢
50.01 to 100.00	30¢
100.01 to 200.00	35¢

C.O.D. MAIL:

Fees for domestic unregistered C.O.D. mail (third- and fourth-class matter and sealed domestic mail matter of any class bearing postage at the first-class rate):

Indemnity limit	Fee
$ .01 to $ 5.00	$ .30
5.01 to 10.00	.40
10.01 to 25.00	.60
25.01 to 50.00	.70
50.01 to 100.00	.80
100.01 to 150.00	.90
150.01 to 200.00	1.00

Fees for domestic registered C.O.D. mail (sealed domestic mail of any class bearing postage at the first-class rate):

Amount collectible and indemnity payable	Fee
$ .01 to $ 10.00	$ .80
10.01 to 50.00	1.10
50.01 to 100.00	1.20
100.01 to 200.00*	1.40

* Limit of collections.

When indemnity in excess of $200 is desired, the fees for domestic registered C.O.D. mail are:

Indemnity limit	Fee
$200.01 to $ 300.00	$1.50
300.01 to 400.00	1.60
400.01 to 500.00	1.70
500.01 to 600.00	1.80
600.01 to 700.00	1.90
700.01 to 800.00	2.00
800.01 to 1000.00	2.10

MISCELLANEOUS:

In registered and insured mail, a receipt card will be returned to the sender upon request. When a card is requested showing to whom and when the delivery was made, the rate is 7¢ if the request is made at the time of mailing, 15¢ if made thereafter. When a card is requested showing to whom and when the delivery was made and the address, the rate is 31¢ and must be paid at the time of mailing.

Fees for effecting delivery of domestic registered, insured, and C.O.D. mail to addressee only or to addressee or order: 20¢.

Fee for notifying sender or his representative of inability to deliver a C.O.D. article: 5¢.

Certificates of mailing for ordinary mail of any class: 3¢ for each article described thereon. Additional certificates for ordinary, registered, insured and Collect-on-delivery mail: 1¢ for each article described thereon.

The sending of registered or insured mail to Army and Navy personnel overseas is restricted. Consult postmaster for details. C.O.D. mail cannot be sent to Navy personnel on board ships or at overseas shore stations.

FOREIGN REGULAR MAIL:

Letters and letter packages: To Canada and Mexico, 3¢ per oz. or fraction. To all other countries, 8¢ for 1st oz., 4¢ per additional oz. or fraction. Weight limit: 4 lb. 6 oz. (60 lb. to Canada).

Post cards: To Canada and Mexico, 2¢ each, 4¢ with reply paid. To all other countries, 4¢ each, 8¢ with reply paid.

FOREIGN AIR MAIL:

Air-letter sheets: Air letters, consisting of sheets which can be folded into the

orm of an envelope and sealed, are acceptable for dispatch by air mail at a uniform rate of 10¢ each to all foreign countries. The sheets are sold at all post offices at 10¢ each. No enclosures, adhesive tape or stickers are permitted.

Letters and letter packages: *See* table for rates.

Air-Mail Rates from U. S. to Selected Countries

Country	Air mail[1]	Air parcel post		
		Initial unit[2]	Addl. weight[3]	Limit, lbs.
bania	$.15	....	....	..
geria	.15	....	....	..
rgentina	.10	$1.51	$ .76	44
ustralia	.25	1.62	1.27	22
ustria	.15	1.05	.49	22
ahamas	.10	.83	.14	22
elgium	.15	.98	.43	44
ermudas	.10	.76	.13	22
olivia	.10	1.08	.40	44
razil	.10	1.48	.64	44[4]
ritish Guiana	.10	1.07	.39	22
ritish Honduras	.10	.80	.20	22
ulgaria	.15	....	....	..
urma	.25	....	....	..
anada[5, 6]	.06	....	....	..
eylon	.25	1.75	1.00	22
hile	.10	1.31	.56	22
hina[7]	.25	1.43[8]	1.08[8]	22[8]
olombia	.10	1.21	.40	44
osta Rica	.10	.79	.29	44
uba	.10	(9)	(9)	22
zechoslovakia	.15	.88	.48	44
enmark	.15	.97	.47	44
ominican Republic	.10	.86	.22	44
cuador	.10	1.24	.33	44
gypt	.15	1.35	.64	22
l Salvador	.10	1.02	.26	44
thiopia	.25	....	....	..
inland	.15	.88	.51	44
rance	.15	1.22	.44	44
rench Guiana	.10	.79	.44	11
ermany	.15	.95	.45	44
reece	.15	1.07	.57	22
uatemala	.10	1.01	.25	44
aiti	.10	.72	.21	44
onduras, Rep. of	.10	.78	.28	44[10]
ong Kong	.25	1.74	1.39	22
ungary	.15	....	....	..
celand	.15	.89	.33	44
ndia	.25	1.70	.96	22
Indonesia	$.25	$1.75	$1.00	11
Iran	.25	....	....	..
Iraq	.25	1.47	.72	44
Ireland	.15	.97	.37	15
Israel	.25	1.42	.67	22
Italy	.15	1.08	.50	44
Jamaica	.10	....	....	..
Japan	.25	1.27	.91	22
Jordan	.25	....	....	..
Korea, Rep. of	.25	1.37	1.01	22
Lebanon	.25	1.22	.64	44[13]
Liberia	.25	.86	.56	22
Mexico	.06[5]	.64	.18	44
Morocco, French	.15	1.19	.54	44
Netherlands	.15	.89	.44	44
New Zealand	.25	1.82	1.17	22
Nicaragua	.10	.80	.29	44
Norway	.15	1.02	.47	44
Pakistan	.25	1.63	.84	22
Panamá	.10	.91	.21	44
Paraguay	.10	1.00	.50	44
Peru	.10	1.23	.37	44
Philippines	.25	1.81	1.26	44[14]
Poland	.15	1.06	.52	44
Portugal	.15	.71	.44	22
Rumania	.15	....	....	..
Saudi Arabia	.25	1.60[11]	.80[11]	22[11]
Spain	.15	1.25	.50	11
Surinam	.10	.92	.41	44
Sweden	.15	.85	.49	44
Switzerland	.15	.92	.46	44
Syria	.25	1.22	.64	44[12]
Thailand	.25	2.29	1.50	22
Turkey	.15	1.15	.57	44
U. of S. Africa	.25	1.31	.94	11
U.S.S.R.	.15	1.66	.63	22
United Kingdom	.15	1.00	.41	22
Uruguay	.10	1.26	.76	44
Venezuela	.10	1.27	.36	44
Yugoslavia	.15	.87	.52	44

[1] For letters and letter packages Unless otherwise indicated, rate shown is per each ½ oz., and weight is limited o 4 lb., 6 oz. For rates for commercial papers, printed matter, samples of merchandise, small packages, 8-oz. merhandise packages, combination packages and articles grouped together, consult local postmaster. [2] Rate for 4 oz. r fraction thereof. [3] Rate for each additional 4 oz. or fraction thereof. [4] Parcels for Brazil exceeding 22 lb. acepted for following offices only: Belem (Para), Belo Horizonte, Florianopolis, Fortaleza, Manaus, Pelotas, Porto legre, Recife (Pernambuco), Rio de Janeiro, Rio Grande (Rio Grande do Sul), Salvador (Bahia), Santos and Sao 'aulo. [5] Per oz.; post cards each 4c. [6] Articles limited to 60 lb. in weight. [7] Registered and ordinary articles in egular mails for Island of Formosa (Taiwan) will be accepted for air transmission to destination. Ordinary (unregisered) articles for all other destinations in China, including Manchuria and Mongolia, prepaid at air-mail rate will e accepted for transmission by air to Hong Kong and onward transmission by surface means. [8] Air parcel post for China is temporarily suspended; available only to Formosa (Taiwan). [9] Service to Cuba is limited to parcels weighing ver 8 oz. and up to 22 lb. Cost for initial weight unit, which is over 8 oz. and up to 12 oz., is $1.10 Each additional oz. or fraction is 15¢. Packages weighing 8 oz. or less must not have customs declarations or parcel post stickers ttached. [10] Parcels for Honduras exceeding 22 lb. accepted for following offices only: Amapala, Comayagua, La Celba, Olanchito, Progreso, Puerto Castilla, Puerto Cortez, San Pedro Sula, Tegucigalpa and Tela. [11] Air parcels for Saudi Arabia limited to the following places only: Al Gaba, Al Lith, Al Wejh, Daha, Dammam, Dhahran, Hassa, Jiddah, Jizam, Katif, Khobar, Mecca, Medina, Qunfidha, Rabigh, Rastanurra, Riyadh, Umm Lej and Yenbo. Limit to Chahba and Salkhad is 11 lb.; limit to Tel-Ablad and Yabroud is 22 lb. [12] Parcels for Lebanon exceeding 1 lb. not accepted for following offices: Ain-Zhalta, Baino, Falougha, Hammana, Koubayat, Maaser-el-Chouf, Ras-Baalbeck and Souk-el-Gharb. [14] Parcels for many offices are limited to 22 lb. or 11 lb. Consult local postmaster for limitations. NOTE: For rates to countries not shown in this table, consult local postmaster. Leaders (....) indicate that there is no air-parcel-post service to the country.

HOW A PRESIDENT IS ELECTED

Selection of Delegates*

FIRST, AT FULL DRESS MEETINGS several months before, the national committees decide the time and place of the conventions. Before the conventions meet, each party selects delegates from every state and territory.

Democrats allow 2 delegates with 1 vote apiece for each Senator, or 4 delegates with ½ vote apiece. Two delegates are allowed for each Congressman. Also, a bonus vote of 4 is allowed each state that went Democratic in 1948. These states may elect 8 delegates with ½ vote each. Six delegates each are allowed to Puerto Rico, D. C., Alaska, and Hawaii, and 2 each to the Canal Zone and the Virgin Islands.

Republicans allow each state 4 delegates-at-large and 2 for each Representative-at-large, as well as 6 additional delegates if the state went Republican in the previous Presidential election or, in that election or a subsequent one held prior to the next Republican National Convention, elects a Republican U. S. Senator or Governor. In addition, each Congressional district within the state that cast 2,000 Republican votes at the last election is permitted a delegate, with an additional delegate if that district cast 10,000 votes. Republicans further allow 3 delegates-at-large for Alaska, 6 for D. C., 8 for Hawaii, 3 for Puerto Rico and 1 for the Virgin Is.

Each party provides for the selection of an equal number of alternates to serve in the absence of regular delegates. Delegates are chosen differently in different states, mostly by party primary but in some cases by party conventions.

The Conventions

At each convention a temporary chairman is chosen, usually to deliver the party's keynote speech. After a credentials committee seats the various delegates, a permanent chairman is elected. The convention then votes on a platform, drawn up by the platform committee.

By the third or fourth day, Presidential nominations begin. The chairman calls the roll of states alphabetically. A state may place a candidate in nomination or yield to another state.

Voting, again alphabetically by voice vote, begins after all nominations have been made and seconded. A simple majority is required in each party, although this may require many ballots.

Finally, the Vice Presidential candidate is selected. Although there is no law saying that the candidates *must* come from different states, it is practically necessary for this to be the case. Otherwise, according to the Constitution (*see* Amendment XII), electors from that state could vote for only one of the candidates and would have to cast their other vote for some person of another state. This could result in the awkward situation of a Presidential candidate's receiving a majority electoral vote and his running mate's failing to.

The Electoral College

The next step in the process is the nomination of electors in each state, according to its laws. These electors must not be Federal office holders. In the November election, the voters cast their votes for electors, not for President. In some states, the ballots include only the names of the Presidential and Vice Presidential candidates; in others, they include only names of the electors. Nowadays, it is rare for electors to be split between parties. The last such occurrence was in Tennessee in 1948; the last before that, in West Virginia in 1916. On three occasions (1824, 1876 and 1888), the candidate with the largest popular vote failed to obtain an electoral-vote majority.

Each state has as many electors as it has United States Senators and members of the House of Representatives. There are 96 Senators and 435 Representatives, a total of 531 electoral votes, of which 266 are needed to win.

On the first Monday after the second Wednesday in December, the electors cast their votes in their respective state capitols. Constitutionally they may vote for someone other than the party candidate but practically they cannot since they are pledged to one party and its candidate on the ballot. Should the Presidential or Vice-Presidential candidate die between the November election and the December meetings, the electors pledged to vote for him could vote for whomever they pleased. However, it seems certain that the national committee would attempt to get an agreement among the state party leaders for a replacement candidate.

The votes of the electors, certified by the states, are sent to Congress, where the president of the Senate opens the certificates and has them counted in the presence of both Houses on January 6. The new President is inaugurated at noon on January 20.

Should no candidate receive a majority of the electoral vote for President, the House of Representatives chooses a President from among the three highest candidates, voting, not as individuals, but as states, with a majority (now 25) needed to elect. Should no Vice Presidential candidate obtain the majority, the Senate, voting as individuals, chooses from the highest two.

* Rules for the 1952 election. Slight changes may be made for the 1956 election.

U. S. National Conventions Since 1856

Date	Party	Where held	Nominated	Vote
June 17, 1856	R	Philadelphia	John C. Frémont	520
June 2, 1856	D	Cincinnati	James Buchanan	296
May 16, 1860	R	Chicago	Abraham Lincoln	364
April 23, 1860	D	Charleston & Baltimore	S. A. Douglas	181
June 7, 1864	R[1]	Baltimore	Abraham Lincoln	Unanimous
Aug. 29, 1864	D	Chicago	Geo. B. McClellan	202½
May 20, 1868	R	Chicago	U. S. Grant	Unanimous
July 4, 1868	D	New York City	Horatio Seymour	Unanimous
June 5, 1872	R	Philadelphia	U. S. Grant	Unanimous
June 9, 1872	D	Baltimore	Horace Greeley	688
June 14, 1876	R	Cincinnati	R. B. Hayes	384
June 28, 1876	D	St. Louis	S. J. Tilden	508
June 2, 1880	R	Chicago	J. A. Garfield	399
June 23, 1880	D	Cincinnati	W. S. Hancock	705
June 3, 1884	R	Chicago	J. G. Blaine	541
July 11, 1884	D	Chicago	Grover Cleveland	683
June 19, 1888	R	Chicago	Benjamin Harrison	544
June 6, 1888	D	St. Louis	Grover Cleveland	By acclamation
June 7, 1892	R	Minneapolis	Benjamin Harrison	535⅙
June 21, 1892	D	Chicago	Grover Cleveland	617½
June 16, 1896	R	St. Louis	William McKinley	661½
July 7, 1896	D	Chicago	William J. Bryan	500
June 19, 1900	R	Philadelphia	William McKinley	Unanimous
July 4, 1900	D	Kansas City	William J. Bryan	By acclamation
June 21, 1904	R	Chicago	Theodore Roosevelt	Unanimous
July 6, 1904	D	St. Louis	Alton B. Parker	678
June 16, 1908	R	Chicago	William H. Taft	702
July 7, 1908	D	Denver	William J. Bryan	892½
June 18, 1912	R	Chicago	William H. Taft	561
June 25, 1912	D	Baltimore	Woodrow Wilson	990
June 7, 1916	R	Chicago	Charles E. Hughes	949½
June 14, 1916	R	St. Louis	Woodrow Wilson	By acclamation
June 8, 1920	R	Chicago	Warren G. Harding	692⅕
June 28, 1920	D	San Francisco	James M. Cox	732½
June 10, 1924	R	Cleveland	Calvin Coolidge	1,065
June 24, 1924[2]	D	New York City	John W. Davis	839[3]
June 12, 1928	R	Kansas City	Herbert Hoover	837
June 26, 1928	D	Houston	Alfred E. Smith	849½
June 14, 1932	R	Chicago	Herbert Hoover	1,126½
June 27, 1932	D	Chicago	F. D. Roosevelt	945
June 9, 1936	R	Cleveland	Alfred M. Landon	984
June 23, 1936	D	Philadelphia	F. D. Roosevelt	By acclamation
June 24, 1940	R	Philadelphia	Wendell L. Willkie	Unanimous
July 15, 1940	D	Chicago	F. D. Roosevelt	Unanimous
June 26, 1944	R	Chicago	Thomas E. Dewey	1,056
July 19, 1944	D	Chicago	F. D. Roosevelt	1,086–90
June 21, 1948	R	Philadelphia	Thomas E. Dewey	1,094–0
July 12, 1948	D	Philadelphia	Harry S. Truman	947½–263½
July 17, 1948	(4)	Birmingham	J. Strom Thurmond	By acclamation
July 22, 1948	P	Philadelphia	Henry A. Wallace	By acclamation
July 7, 1952	R	Chicago	Dwight D. Eisenhower	845–361
July 21, 1952	D	Chicago	Adlai E. Stevenson	By acclamation

[1] The Convention adopted the name Union party so as to attract War Democrats and others favoring prosecution of the war. [2] In session until July 10, 1924. [3] Nominated on 103d ballot. [4] States' Rights delegates from 13 Southern states. NOTE: Cities for 1956 National Conventions; Democratic, Chicago; Republican, San Francisco.

Presidential Succession

The following is the order of the succession to the Presidency. No person may become President, however, unless he is eligible under the Constitution.

1. Vice President of the U. S.
2. Speaker of the House.
3. President pro tempore of the Senate.
4. Secretary of State.
5. Secretary of the Treasury.
6. Secretary of Defense.
7. Attorney General.
8. Postmaster General.
9. Secretary of the Interior.
10. Secretary of Agriculture.
11. Secretary of Commerce.
12. Secretary of Labor.

Presidential Elections, 1789 to 1952

Year	Presidential candidates	Party	Electoral vote
1789[1,2]	George Washington	(no party)	69
	John Adams	(no party)	34
	Scattering	(no party)	35
	Votes not cast		8
1792[1]	George Washington	Federalist	132
	John Adams	Federalist	77
	George Clinton	Anti-Federalist	50
	Thomas Jefferson	Anti-Federalist	4
	Aaron Burr	Anti-Federalist	1
	Votes not cast		6
1796[1]	John Adams	Federalist	71
	Thomas Jefferson	Dem.-Rep.	68
	Thomas Pinckney	Federalist	59
	Aaron Burr	Dem.-Rep.	30
	Scattering		48
1800[1,3]	Thomas Jefferson	Dem.-Rep.	73
	Aaron Burr	Dem.-Rep.	73
	John Adams	Federalist	65
	Charles C. Pinckney	Federalist	64
	John Jay	Federalist	1

[1] For the original method of electing the President and the Vice President, *see* Article II, Section 1, of the Constitution. [2] Only 10 states participated in the election. The New York legislature chose no electors, and North Carolina and Rhode Island had not yet ratified the Constitution. [3] As Jefferson and Burr were tied, the House of Representatives chose the President. In a vote by states, 10 votes were cast for Jefferson, 4 for Burr; 2 votes were not cast.

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1804[1]	Thomas Jefferson	Dem.-Rep.	162	George Clinton	Dem.-Rep.	162
	Charles C. Pinckney	Federalist	14	Rufus King	Federalist	14
1808	James Madison	Dem.-Rep.	122	George Clinton	Dem.-Rep.	113
	Charles C. Pinckney	Federalist	47	Rufus King	Federalist	47
	George Clinton	Dem.-Rep.	6	John Langdon	Ind. (no party)	9
	Votes not cast		1	James Madison	Dem.-Rep.	3
				James Monroe	Dem.-Rep.	3
				Votes not cast		1
1812	James Madison	Dem.-Rep.	128	Elbridge Gerry	Dem.-Rep.	131
	De Witt Clinton	Federalist	89	Jared Ingersoll	Federalist	86
	Votes not cast		1	Votes not cast		1
1816	James Monroe	Dem.-Rep.	183	Daniel D. Tompkins	Dem.-Rep.	183
	Rufus King	Federalist	34	John E. Howard	Federalist	22
	Votes not cast		4	James Ross	Ind. (no party)	5
				John Marshall	Federalist	4
				Robert G. Harper	Ind. (no party)	3
				Votes not cast		4
1820	James Monroe	Dem.-Rep.	231	Daniel D. Tompkins	Dem.-Rep.	218
	John Quincy Adams	Ind. (no party)	1	Richard Stockton	Ind. (no party)	8
	Votes not cast		3	Daniel Rodney	Ind. (no party)	4
				Richard Rush	Ind. (no party)	1
				Robert G. Harper	Ind. (no party)	1
				Votes not cast		3
1824[2]	John Quincy Adams	(no party)	84	John C. Calhoun	(no party)	182
	Andrew Jackson	(no party)	99	Nathan Sanford	(no party)	30
	William H. Crawford	(no party)	41	Nathaniel Macon	(no party)	24
	Henry Clay	(no party)	37	Andrew Jackson	(no party)	13
				Martin Van Buren	(no party)	9
				Henry Clay	(no party)	2
				Votes not cast		1
1828	Andrew Jackson	Democratic	178	John C. Calhoun	Democratic	171
	John Quincy Adams	Natl. Rep.	83	Richard Rush	Natl. Rep.	83
				William Smith	Democratic	7
1832	Andrew Jackson	Democratic	219	Martin Van Buren	Democratic	189
	Henry Clay	Natl. Rep.	49	John Sergeant	Natl. Rep.	49
	John Floyd	Ind. (no party)	11	Henry Lee	Ind. (no party)	11
	William Wirt[3]	Antimasonic	7	Amos Ellmaker	Antimasonic	7
	Votes not cast		2	William Wilkins	Ind. (no party)	30
				Votes not cast		2
1836	Martin Van Buren	Democratic	170	Richard M. Johnson[4]	Democratic	147
	William H. Harrison	Whig	73	Francis Granger	Whig	77
	Hugh L. White	Whig	26	John Tyler	Democratic	47
	Daniel Webster	Whig	14	William Smith	Ind. (no party)	23
	W. Mangum	Ind. (no party)	11			
1840	William H. Harrison[5]	Whig	234	John Tyler	Whig	234
	Martin Van Buren	Democratic	60	Richard M. Johnson	Democratic	48
				L. W. Tazewell	Ind. (no party)	11
				James K. Polk	Democratic	1

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1844	James K. Polk	Democratic	170	George M. Dallas	Democratic	170
	Henry Clay	Whig	105	Theo. Frelinghuysen	Whig	105
1848	Zachary Taylor[6]	Whig	163	Millard Fillmore	Whig	163
	Lewis Cass	Democratic	127	William O. Butler	Democratic	127
1852	Franklin Pierce	Democratic	254	William R. King	Democratic	254
	Winfield Scott	Whig	42	William A. Graham	Whig	42
1856	James Buchanan	Democratic	174	John C. Breckinridge	Democratic	174
	John C. Frémont	Republican	114	William L. Dayton	Republican	114
	Millard Fillmore	American[7]	8	A. J. Donelson	American[7]	8
1860	Abraham Lincoln	Republican	180	Hannibal Hamlin	Republican	180
	John C. Breckinridge	Democratic	72	Joseph Lane	Democratic	72
	John Bell	Const. Union	39	Edward Everett	Const. Union	39
	Stephen A. Douglas	Democratic	12	H. V. Johnson	Democratic	12
1864	Abraham Lincoln[8]	Union[10]	212	Andrew Johnson	Union[10]	212
	George B. McClellan	Democratic	21	G. H. Pendleton	Democratic	21
1868	Ulysses S. Grant	Republican	214	Schuyler Colfax	Republican	214
	Horatio Seymour	Democratic	80	Francis P. Blair, Jr.	Democratic	80
	Votes not counted[9]		23	Votes not counted[9]		23

[1] The first election in which the electors voted for President and Vice President on separate ballots. (*See* Amendment XII to the Constitution.) [3] As no candidate had an electoral-vote majority, the House of Representatives chose the President from the first three. In a vote by states, 13 votes were cast for Adams, 7 for Jackson, and 4 for Crawford. [4] The Antimasonic party on Sept. 26, 1831, was the first party to hold a nominating convention to choose candidates for President and Vice President. [4] As Johnson did not have an electoral-vote majority, the Senate chose him 33–14 over Granger, the others being legally out of the race. [5] Harrison died Apr. 4, 1841, and Tyler succeeded him Apr. 6. [6] Taylor died July 9, 1850, and Fillmore succeeded him July 10. [7] Also known as the Know-Nothing party. [8] Lincoln died Apr. 15, 1865, and Johnson succeeded him the same day. [9] 23 Southern electoral votes were excluded. [10] Name adopted by the Republican National Convention of 1864. Johnson was a War Democrat.

Year	Presidential candidates	Party	Electoral vote	Popular vote[1]	Vice-presidential candidates and party
1872	Ulysses S. Grant	Republican	286	3,597,132	Henry Wilson—R
	Horace Greeley	Dem., Liberal Rep.	(2)	2,834,125	B. Gratz Brown—D, LR—(47)
	Thomas A. Hendricks	Democratic	42		Scattering—(19)
	B. Gratz Brown	Dem., Liberal Rep.	18		Votes not counted—(14)
	Charles J. Jenkins	Democratic	2		
	David Davis	Democratic	1		
	Votes not counted		17		
1876[3]	Rutherford B. Hayes	Republican	185	4,033,768	William A. Wheeler—R
	Samuel J. Tilden	Democratic	184	4,285,992	Thomas A. Hendricks—D
	Peter Cooper	Greenback	0	81,737	Samuel F. Cary—G
1880	James A. Garfield[4]	Republican	214	4,449,053	Chester A. Arthur—R
	Winfield S. Hancock	Democratic	155	4,442,035	William H. English—D
	James B. Weaver	Greenback	0	308,578	B. J. Chambers—G
1884	Grover Cleveland	Democratic	219	4,911,017	Thomas A. Hendricks—D
	James G. Blaine	Republican	182	4,848,334	John A. Logan—R
	Benjamin F. Butler	Greenback	0	175,370	A. M. West—G
	John P. St. John	Prohibition	0	150,369	William Daniel—P
1888	Benjamin Harrison	Republican	233	5,440,216	Levi P. Morton—R
	Grover Cleveland	Democratic	168	5,538,233	A. G. Thurman—D
	Clinton B. Fisk	Prohibition	0	249,506	John A. Brooks—P
	Alson J. Streeter	Union Labor	0	146,935	Charles E. Cunningham—UL
1892	Grover Cleveland	Democratic	277	5,556,918	Adlai E. Stevenson—D
	Benjamin Harrison	Republican	145	5,176,108	Whitelaw Reid—R
	James B. Weaver	People's[5]	22	1,041,028	James G. Field—Peo
	John Bidwell	Prohibition	0	264,133	James B. Cranfill—P
1896	William McKinley	Republican	271	7,035,638	Garret A. Hobart—R
	William J. Bryan	Dem., People's[5]	176	6,467,946	Arthur Sewall—D—(149)
					Thomas E. Watson—Peo—(27)
	John M. Palmer	Natl. Dem.	0	133,148	Simon B. Buckner—ND
	Joshua Levering	Prohibition	0	132,007	Hale Johnson—P
1900	William McKinley[6]	Republican	292	7,219,530	Theodore Roosevelt—R
	William J. Bryan	Dem., People's[5]	155	6,358,071	Adlai E. Stevenson—D, Peo
	John G. Woolley	Prohibition	0	208,914	Henry B. Metcalf—P
	Eugene V. Debs	Social Democratic	0	94,768	Job Harriman—SD

Year	Presidential candidates	Party	Electoral vote	Popular vote[1]	Vice-presidential candidates and party
1904	Theodore Roosevelt	Republican	336	7,628,834	Charles W. Fairbanks—R
	Alton B. Parker	Democratic	140	5,084,491	Henry G. Davis—D
	Eugene V. Debs	Socialist	0	402,400	Benjamin Hanford—S
	Silas C. Swallow	Prohibition	0	258,536	George W. Carroll—P
	Thomas E. Watson	People's	0	117,183	Thomas H. Tibbles—Peo
1908	William H. Taft	Republican	321	7,679,006	James S. Sherman—R
	William J. Bryan	Democratic	162	6,409,106	John W. Kern—D
	Eugene V. Debs	Socialist	0	420,820	Benjamin Hanford—S
	Eugene W. Chafin	Prohibition	0	253,840	Aaron S. Watkins—P
	Thomas L. Hisgen	Independence	0	82,872	John T. Graves—I
1912	Woodrow Wilson	Democratic	435	6,286,214	Thomas R. Marshall—D
	Theodore Roosevelt	Progressive	88	4,126,020	Hiram Johnson—Prog
	William H. Taft	Republican	8	3,483,922	Nicholas M. Butler—R[7]
	Eugene V. Debs	Socialist	0	897,011	Emil Seidel—S
	Eugene W. Chafin	Prohibition	0	206,275	Aaron S. Watkins—P
1916	Woodrow Wilson	Democratic	277	9,129,606	Thomas R. Marshall—D
	Charles E. Hughes	Republican	254	8,538,221	Charles W. Fairbanks—R
	A. L. Benson	Socialist	0	585,113	G. R. Kirkpatrick—S
	J. Frank Hanly	Prohibition	0	220,506	Ira Landrith—P
1920	Warren G. Harding[8]	Republican	404	16,152,200	Calvin Coolidge—R
	James M. Cox	Democratic	127	9,147,353	Franklin D. Roosevelt—D
	Eugene V. Debs	Socialist	0	917,799	Seymour Stedman—S
	P. P. Christensen	Farmer-Labor	0	265,411	Max S. Hayes—FL
	Aaron S. Watkins	Prohibition	0	189,408	D. Leigh Colvin—P
1924	Calvin Coolidge	Republican	382	15,725,016	Charles G. Dawes—R
	John W. Davis	Democratic	136	8,385,586	Charles W. Bryan—D
	Robert M. LaFollette	Progressive, Socialist	13	4,822,856	Burton K. Wheeler—Prog S
1928	Herbert Hoover	Republican	444	21,392,190	Charles Curtis—R
	Alfred E. Smith	Democratic	87	15,016,443	Joseph T. Robinson—D
	Norman Thomas	Socialist	0	267,420	James H. Maurer—S
1932	Franklin D. Roosevelt	Democratic	472	22,821,857	John N. Garner—D
	Herbert Hoover	Republican	59	15,761,841	Charles Curtis—R
	Norman Thomas	Socialist	0	884,781	James H. Maurer—S
	William Z. Foster	Communist	0	102,991	James W. Ford—C
	William D. Upshaw	Prohibition	0	81,869	Frank S. Regan—P
1936	Franklin D. Roosevelt	Democratic	523	27,751,597	John N. Garner—D
	Alfred M. Landon	Republican	8	16,679,583	Frank Knox—R
	William Lemke	Union	0	882,479	Thomas C. O'Brien—U
	Norman Thomas	Socialist	0	187,720	George Nelson—S
	Earl Browder	Communist	0	80,159	James W. Ford—C
1940	Franklin D. Roosevelt	Democratic	449	27,244,160	Henry A. Wallace—D
	Wendell L. Willkie	Republican	82	22,305,198	Charles L. McNary—R
	Norman Thomas	Socialist	0	100,264	Maynard C. Krueger—S
1944	Franklin D. Roosevelt[9]	Democratic	432	25,602,504	Harry S. Truman—D
	Thomas E. Dewey	Republican	99	22,006,285	John W. Bricker—R
	Norman Thomas	Socialist	0	80,426	Darlington Hoopes—S
1948	Harry S. Truman	Democratic	303	24,105,695	Alben W. Barkley—D
	Thomas E. Dewey	Republican	189	21,969,170	Earl Warren—R
	J. Strom Thurmond	States' Rights Dem.	39	1,169,021	Fielding L. Wright—SR
	Henry A. Wallace	Progressive	0	1,156,103	Glen Taylor—Prog
	Norman Thomas	Socialist	0	139,009	Tucker P. Smith—S
	Claude A. Watson	Prohibition	0	103,216	Dale Learn—Proh
1952	Dwight D. Eisenhower	Republican	442	33,824,351	Richard M. Nixon—R
	Adlai E. Stevenson	Democratic	89	27,314,987	John J. Sparkman—D
	Vincent W. Hallinan	Progressive	0	132,608	Charlotta A. Bass—Prog

[1] For those candidates receiving over 75,000 votes. [2] Greeley died Nov. 29, 1872, before his 66 electors voted. In the electoral balloting for President, 63 of Greeley's votes were scattered among Hendricks, Brown, Jenkins and Davis; the other 3, included in "Votes not counted," were cast for Greeley by electors from Georgia. This was the first election in which every state chose its electors by popular vote. [3] After the voting of the electoral college, Tilden had 184 undisputed votes, and Hayes 163. However, 22 other votes were in doubt, because two sets of electoral ballots were received from South Carolina, Louisiana, Florida and Oregon. For each of the three Southern states, one set was completely Democratic, the other completely Republican. For Oregon, one set gave all 3 of the state's votes to Hayes, the other gave one of the votes to Tilden. To settle the dispute, Congress created an Electoral Commission on Jan. 29, 1877. This Commission, consisting of 5 Supreme Court justices, 5 senators and 5 representatives (8 Republicans and 7 Democrats), gave the 22 votes in question to Hayes. [4] Garfield died Sept. 19, 1881, and Arthur succeeded him Sept. 20. [5] The members of the People's party were known as Populists. [6] McKinley died Sept. 14, 1901, and Roosevelt succeeded him the same day. [7] James S. Sherman, Republican candidate for Vice President, died Oct. 30, 1912, and the Republican electoral votes were cast for Butler. [8] Harding died Aug. 2, 1923, and Coolidge succeeded him Aug. 3. [9] Roosevelt died Apr. 12, 1945, and Truman succeeded him the same day.

Presidential Election of 1928

Source: Secretaries of State of the several states from records filed with the House of Representatives.

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Republican—Herbert Hoover, California; Charles Curtis, Kansas.

Democratic—Alfred E. Smith, New York; Joseph T. Robinson, Arkansas.

Socialist—Norman Thomas, New York; James H. Maurer, Pennsylvania.

Socialist Labor—Verne L. Reynolds, New York; Jeremiah D. Crowley, New York.

Prohibition—William F. Varney, New York; James A. Edgerton, Virginia.

Workers—William Z. Foster, Illinois; Benjamin Gitlow, New York.

State	Total	Rep.	Dem.	Plur.	Electoral R	Electoral D	Soc.	Soc. Lab.*	Prohib.	Others†
abama	248,982	120,725	127,797	7,072 D	..	12	460	.....	.....	.....
izona	91,254	52,533	38,537	13,996 R	3	..	.....	.....	.....	184
kansas	197,693	77,751	119,196	41,445 D	..	9	429	.....	.....	317
lifornia	1,796,656	1,162,323	614,365	547,958 R	13	..	19,595	.....	.....	373
lorado	392,242	253,872	133,131	120,741 R	6	..	3,472	.....	.....	1,767
nnecticut	553,031	296,614	252,040	44,574 R	7	..	3,019	622	.....	736
laware	105,891	68,860	36,643	32,217 R	3	..	329	.....	.....	59
rida	253,674	144,168	101,764	42,404 R	6	..	4,036	.....	.....	3,706
orgia	229,159	63,498	129,602	66,104 D	..	14	124	.....	.....	35,935
aho	154,230	99,848	53,074	46,774 R	4	..	1,308	.....	.....	.....
nois	3,107,489	1,769,141	1,313,817	455,324 R	29	..	19,138	1,812	.....	3,581
diana	1,421,314	848,290	562,691	285,599 R	15	..	3,871	645	5,496	321
va	1,009,362	623,818	378,936	244,882 R	13	..	2,960	230	.....	3,418
nsas	713,200	513,672	193,003	320,669 R	10	..	6,205	.....	.....	320
ntucky	940,604	558,064	381,070	176,994 R	13	..	837	340	.....	293
uisiana	215,833	51,160	164,655	113,495 D	..	10	.....	.....	.....	18
ine	262,171	179,923	81,179	98,744 R	6	..	1,068	.....	.....	1
ryland	528,348	301,479	223,626	77,853 R	8	..	1,701	906	.....	636
ssachusetts	1,577,827	775,566	792,758	17,192 D	..	18	6,262	773	.....	2,468
chigan	1,372,082	965,396	396,762	568,634 R	15	..	3,516	799	2,728	2,881
nnesota	970,976	560,977	396,451	164,526 R	12	..	6,774	1,921	.....	4,853
ssissippi	151,692	27,153	124,539	97,386 D	..	10	.....	.....	.....	.....
ssouri	1,500,721	834,080	662,562	171,518 R	18	..	3,739	340	.....	.....
ntana	194,108	113,300	78,578	34,722 R	4	..	1,667	.....	.....	563
braska	547,138	345,745	197,959	147,786 R	8	..	3,434	.....	.....	.....
vada	32,417	18,327	14,090	4,237 R	3	..	.....	.....	.....	.....
w Hampshire	196,747	115,404	80,715	34,689 R	4	..	455	.....	.....	173
w Jersey	1,549,381	926,050	616,517	309,533 R	14	..	4,897	500	160	1,257
w Mexico	118,014	69,645	48,211	21,434 R	3	..	.....	.....	.....	158
w York	4,466,072	2,193,344	2,089,863	103,481 R	45	..	107,332	4,211	.....	71,322
rth Carolina	636,070	348,992	287,078	61,914 R	12	..	.....	.....	.....	.....
rth Dakota	239,867	131,441	106,648	24,793 R	5	..	842	.....	.....	936
io	2,508,346	1,627,546	864,210	763,336 R	24	..	8,683	1,515	3,556	2,836
lahoma	618,427	394,046	219,174	174,872 R	10	..	3,924	.....	.....	1,283
egon	319,942	205,341	109,223	96,118 R	5	..	2,720	1,564	.....	1,094
nnsylvania	3,150,615	2,055,382	1,067,586	987,796 R	38	..	18,647	380	3,880	4,740
ode Island	242,784	117,522	118,973	1,451 D	..	5	.....	416	.....	5,873
uth Carolina	68,605	3,188	62,700	59,512 D	..	9	47	.....	.....	2,670
uth Dakota	261,865	157,603	102,660	54,943 R	5	..	443	.....	.....	1,159
nnessee	363,473	195,388	167,343	28,045 R	12	..	631	.....	.....	111
xas	708,999	367,036	341,032	26,004 R	20	..	722	.....	.....	209
ah	176,604	94,618	80,985	13,633 R	4	..	954	.....	.....	47
rmont	135,191	90,404	44,440	45,964 R	4	..	.....	.....	338	9
ginia	305,358	164,609	140,146	24,463 R	12	..	250	180	.....	173
shington	500,840	335,844	156,772	179,072 R	7	..	2,615	4,068	.....	1,541
st Virginia	642,752	375,551	263,784	111,767 R	8	..	1,313	.....	1,703	401
sconsin	1,016,872	544,205	450,259	93,946 R	13	..	18,213	381	2,245	1,569
oming	84,496	52,748	29,299	23,449 R	3	..	788	.....	.....	1,661
al	36,879,414	21,392,190	15,016,443	6,375,747 R	444	87	267,420	21,603	20,106	161,652

* Labor party in Maryland; Industrial party in Minnesota; Industrialist party in Pennsylvania.
† Breakdown of other votes: Workers 48,770; Anti-Smith 38,541; Farmer-Labor 6,390; void or scattering votes 700; blank or defective ballots 7,251.

Presidential Election of 1932

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; John N. Garner, Texas.

Republican—Herbert Hoover, California; Charles Curtis, Kansas.

Socialist—Norman Thomas, New York; James H. Maurer, Pennsylvania.

Socialist Labor—Verne L. Reynolds, New York; John W. Aiken, Massachusetts.

Prohibition—William D. Upshaw, Georgia; Frank S. Regan, Illinois.

Communist—William Z. Foster, Illinois; James W. Ford, New York.

Liberty—W. H. Harvey, Arkansas; F. B. Hemenway, Washington.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Soc. Lab.*	Prohib.	Others†
Alabama	245,034	207,910	34,675	173,235 D	11	..	2,030	.....	13	406
Arizona	118,251	79,264	36,104	43,160 D	3	..	2,618	.....	.....	265
Arkansas	220,562	189,602	28,467	161,135 D	9	..	1,269	.....	.....	1,224
California	2,266,972	1,324,157	847,902	476,255 D	22	..	63,299	.....	20,637	10,977
Colorado	457,696	250,877	189,617	61,260 D	6	..	13,591	427	1,928	1,256
Connecticut	594,207	281,632	288,420	6,788 R	..	8	20,480	2,287	.....	1,388
Delaware	112,901	54,319	57,073	2,754 R	..	3	1,376	.....	.....	133
Florida	276,252	206,307	69,170	137,137 D	7	..	775	.....	.....	.....
Georgia	255,590	234,118	19,863	214,255 D	12	..	461	.....	1,125	23
Idaho	186,520	109,479	71,312	38,167 D	4	..	526	.....	.....	5,203
Illinois	3,407,926	1,882,304	1,432,756	449,548 D	29	..	67,258	3,638	6,388	15,582
Indiana	1,576,927	862,054	677,184	184,870 D	14	..	21,388	2,070	10,399	3,832
Iowa	1,036,687	598,019	414,433	183,586 D	11	..	20,467	.....	2,111	1,657
Kansas	791,978	424,204	349,498	74,706 D	9	..	18,276	.....	.....	.....
Kentucky	983,063	580,574	394,716	185,858 D	11	..	3,853	1,396	2,252	272
Louisiana	268,804	249,418	18,853	230,565 D	10	..	.....	.....	.....	533
Maine	298,444	128,907	166,631	37,724 R	..	5	2,489	255	.....	162
Maryland	511,054	314,314	184,184	130,130 D	8	..	10,489	1,036	.....	1,031
Massachusetts	1,580,114	800,148	736,959	63,189 D	17	..	34,305	2,668	1,142	4,892
Michigan	1,664,628	871,700	739,894	131,806 D	19	..	39,205	1,401	2,893	9,535
Minnesota	1,002,843	600,806	363,959	236,847 D	11	..	25,476	.....	.....	12,602
Mississippi	146,034	140,168	5,180	134,988 D	9	..	686	.....	.....	.....
Missouri	1,609,894	1,025,406	564,713	460,693 D	15	..	16,374	404	2,429	566
Montana	216,479	127,286	78,078	49,208 D	4	..	7,891	.....	.....	3,224
Nebraska	570,135	359,082	201,177	157,905 D	7	..	9,876	.....	.....	.....
Nevada	41,430	28,756	12,674	16,082 D	3	..	.....	.....	.....	.....
New Hampshire	205,520	100,680	103,629	2,949 R	...	4	947	.....	.....	264
New Jersey	1,630,063	806,630	775,684	30,946 D	16	..	42,998	1,062	774	2,915
New Mexico	151,606	95,089	54,217	40,872 D	3	..	1,776	.....	.....	524
New York	4,753,698	2,534,959	1,937,963	596,996 D	47	..	177,397	10,339	.....	93,040
North Carolina	711,501	497,566	208,344	289,222 D	13	..	5,591	.....	.....	.....
North Dakota	256,290	178,350	71,772	106,578 D	4	..	3,521	.....	.....	2,647
Ohio	2,610,088	1,301,695	1,227,679	74,016 D	26	..	64,094	1,968	7,421	7,231
Oklahoma	704,633	516,468	188,165	328,303 D	11	..	.....	.....	.....	.....
Oregon	368,751	213,871	136,019	77,852 D	5	..	15,450	1,730	.....	1,681
Pennsylvania	2,859,002	1,295,948	1,453,540	157,592 R	..	36	91,119	659	11,319	6,417
Rhode Island	266,170	146,604	115,266	31,338 D	4	..	3,138	433	183	546
South Carolina	104,407	102,347	1,978	100,469 D	8	..	82	.....	.....	.....
South Dakota	288,438	183,515	99,212	84,303 D	4	..	1,551	.....	463	3,697
Tennessee	390,638	259,817	126,806	133,011 D	11	..	1,786	.....	1,995	234
Texas	863,426	760,348	97,959	662,389 D	23	..	4,450	.....	.....	669
Utah	206,579	116,750	84,795	31,955 D	4	..	4,087	.....	.....	947
Vermont	136,980	56,266	78,984	22,718 R	..	3	1,533	.....	.....	197
Virginia	297,942	203,979	89,637	114,342 D	11	..	2,382	.....	1,843	101
Washington	614,814	353,260	208,645	144,615 D	8	..	17,080	1,009	1,540	33,280
West Virginia	743,774	405,124	330,731	74,393 D	8	..	5,133	.....	2,342	444
Wisconsin	1,114,815	707,410	347,741	359,669 D	12	..	53,379	494	2,672	3,119
Wyoming	96,962	54,370	39,583	14,787 D	3	..	2,829	.....	.....	180
Totals	39,816,522	22,821,857	15,761,841	7,060,016 D	472	59	884,781	33,276	81,869	232,898

* Industrialist party in Pennsylvania.

† Breakdown of other votes: Communist 102,991; Liberty 53,425; Farmer-Labor 7,309; National 1,645; Industrialist (Minn.) 770; Jobless 725; Independent 533; Jacksonian 104; void or scattering 65,396.

Presidential Election of 1936

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; John N. Garner, Texas.
Republican—Alfred M. Landon, Kansas; Frank Knox, Illinois.
Socialist—Norman Thomas, New York; George Nelson, Wisconsin.
Prohibition—D. Leigh Colvin, New York; Claude A. Watson, California.
Communist—Earl Browder, Kansas; James W. Ford, New York.
Union—William Lemke, North Dakota; Thomas C. O'Brien, Massachusetts.
Socialist Labor—John W. Aiken, Massachusetts; Emil F. Teichert, New York.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Prohib.	Comm.	Others*
Alabama	275,744	238,196	35,358	202 838 D	11	..	242	719	678	551
Arizona	124,163	86,722	33,433	53,289 D	3	..	317	384	....	3,307
Arkansas	179,423	146,765	32,039	114,726 D	9	..	446	.....	169	4
California	2,638,882	1,766,836	836,431	930,405 D	22	..	11,331	12,917	10,877	490
Colorado	488,676	295,021	181,267	113,754 D	6	..	1,593	.....	497	10,298
Connecticut	690,783	382,189	278,685	103,504 D	8	..	5,683	.....	1,193	23,033
Delaware	127,603	69,702	54,014	15,688 D	3	..	172	.....	51	3,664
Florida	327,365	249,117	78,248	170,869 D	7	..	.....	.....	.....	.....
Georgia	293,178	255,364	36,942	218,422 D	12	..	68	663	.....	141
Idaho	199,623	125,683	66,256	59,427 D	4	..	.....	.....	.....	7,684
Illinois	3,956,522	2,282,999	1,570,393	712,606 D	29	..	7,530	3,439	801	91,360
Indiana	1,650,897	934,974	691,570	243,404 D	14	..	3,856	.....	1,090	19,407
Iowa	1,142,733	621,756	487,977	133,779 D	11	..	1,373	1,182	506	29,939
Kansas	865,013	464,520	397,727	66,793 D	9	..	2,766	.....	.....	.....
Kentucky	926,206	541,944	369,702	172,242 D	11	..	632	929	204	12,795
Louisiana	329,778	292,894	36,791	256,103 D	10	..	.....	.....	.....	93
Maine	304,240	126,333	168,823	42,490 R	...	5	783	334	257	7,710
Maryland	624,896	389,612	231,435	158,177 D	8	..	1,629	.....	915	1,305
Massachusetts	1,840,357	942,716	768,613	174,103 D	17	..	5,111	1,032	2,930	119,955
Michigan	1,805,093	1,016,794	699,733	317,061 D	19	..	8,208	579†	3,384	76,395
Minnesota	1,129,975	698,811	350,461	348,350 D	11	..	2,872	.....	2,574	75,257
Mississippi	162,090	157,318	4,443	152,875 D	9	..	329	.....	.....	.....
Missouri	1,828,635	1,111,043	697,891	413,152 D	15	..	3,454	908	417	14,922
Montana	230,512	159,690	63,598	96,092 D	4	..	1,066	224	385	5,549
Nebraska	608,032	347,454	247,731	100,323 D	7	..	.....	.....	.....	12,847
Nevada	43,848	31,925	11,923	20,002 D	3	..	.....	.....	.....	.....
New Hampshire	218,114	108,460	104,642	3,798 D	4	..	.....	.....	193	4,819
New Jersey	1,820,437	1,083,850	720,322	363,528 D	16	..	3,931	926	1,639	9,769
New Mexico	168,920	105,838	61,710	44,128 D	3	..	343	62	43	924
New York	5,596,398	3,293,222‡	2,180,670	1,112,552 D	47	..	86,897	.....	35,609	.....
North Carolina	839,462	616,141	223,283	392,858 D	13	..	21	.....	11	6
North Dakota	273,716	163,148	72,751	90,397 D	4	..	552	197	360	36,708
Ohio	3,012,425	1,747,122	1,127,709	619,413 D	26	..	117	.....	5,251	132,226
Oklahoma	749,740	501,069	245,122	255,947 D	11	..	2,221	1,328	.....	.....
Oregon	414,021	266,733	122,706	144,027 D	5	..	2,143	4	104	22,331
Pennsylvania	4,138,105	2,353,788	1,690,300	663,488 D	36	..	14,375	6,691	4,060	68,891
Rhode Island	311,149	165,233	125,012	40,221 D	4	..	.....	.....	411	20,493
South Carolina	115,437	113,791	1,646	112,145 D	8	..	.....	.....	.....	.....
South Dakota	296,452	160,137	125,977	34,160 D	4	..	.....	.....	.....	10,388
Tennessee	475,531	327,083	146,516	180,567 D	11	..	685	632	319	296
Texas	843,482	734,485	103,874	630,611 D	23	..	1,075	514	253	3,281
Utah	216,677	150,246	64,555	85,691 D	4	..	432	43	280	1,121
Vermont	143,689	62,124	81,023	18,899 R	...	3	.....	.....	405	137
Virginia	334,590	234,980	98,336	136,644 D	11	..	313	594	98	269
Washington	692,338	459,579	206,892	252,687 D	8	..	3,496	1,041	1,907	19,423
West Virginia	830,073	502,582	325,486	177,096 D	8	..	832	1,173	.....	.....
Wisconsin	1,258,712	802,984	380,828	422,156 D	12	..	10,626	1,071	2,197	61,006
Wyoming	103,382	62,624	38,739	23,885 D	3	..	200	75	91	1,653
Total	45,647,117	27,751,597	16,679,583	10,797,090 D	523	8	187,720	37,661	80,159	910,397

* Breakdown of other votes: Union (including Royal Oak, Independent, and Third) 882,479; Socialist Labor (including Labor, Industrial, and Independent Labor) 12,802; National Union for Social Justice 9,407; Independent Republican 3,222; Christian 1,598; scattering 889.

† Commonwealth votes.

‡ Includes 274,924 American Labor votes.

Presidential Election of 1940

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; Henry A. Wallace, Iowa.

Republican—Wendell L. Willkie, New York; Charles L. McNary, Oregon.

Socialist—Norman Thomas, New York; Maynard C. Krueger, Illinois.

Prohibition—Roger W. Babson, Massachusetts; Edgar V. Moorman, Illinois.

Communist—Earl Browder, Kansas; James W. Ford, New York.

Socialist Labor—John W. Aiken, Massachusetts; Aaron M. Orange, New York.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Prohib.	Comm.	Others*
Alabama	294,219	250,726	42,184	208,542 D	11	..	100	700	509	.....
Arizona	150,039	95,267	54,030	41,237 D	3	..	.....	742	.....	.....
Arkansas	201,838	158,622	42,122	116,500 D	9	..	301	793	.....	.....
California	3,268,791	1,877,618	1,351,419	526,199 D	22	..	.....	9,400	13,586	16,768
Colorado	549,004	265,554	279,576	14,022 R	...	6	1,899	1,597	378	.....
Connecticut	781,502	417,621	361,819†	55,802 D	8	..	.....	.....	1,091	971
Delaware	136,374	74,599	61,440	13,159 D	3	..	115	220	.....	.....
Florida	485,492	359,334	126,158	233,176 D	7	..	.....	.....	.....	.....
Georgia	312,553	265,194	23,934	241,260 D	12	..	.....	983	.....	22,442
Idaho	235,168	127,842	106,553	21,289 D	4	..	497	.....	276	.....
Illinois	4,217,935	2,149,934	2,047,240	102,694 D	29	..	10,914	9,190	.....	657
Indiana	1,782,747	874,063	899,466	25,403 R	...	14	2,075	6,437	.....	706
Iowa	1,215,430	578,800	632,370	53,570 R	...	11	.....	2,284	1,524	452
Kansas	860,297	364,725	489,169	124,444 R	...	9	2,347	4,056	.....	.....
Kentucky	970,063	557,222	410,384	146,838 D	11	..	1,014	1,443	.....	.....
Louisiana	372,305	319,751	52,446	267,305 D	10	..	.....	.....	.....	108
Maine	320,840	156,478	163,951	7,473 R	...	5	.....	.....	411	.....
Maryland	660,104	384,546	269,534	115,012 D	8	..	4,093	.....	1,274	657
Massachusetts	2,026,993	1,076,522	939,700	136,822 D	17	..	4,091	1,370	3,806	1,504
Michigan	2,085,929	1,032,991	1,039,917	6,926 R	...	19	7,593	1,795	2,834	799
Minnesota	1,251,188	644,196	596,274	47,922 D	11	..	5,454	.....	2,711	2,553
Mississippi	175,824	168,267	2,814	165,453 D	9	..	193	.....	.....	4,550
Missouri	1,833,729	958,476	871,009	87,467 D	15	..	2,226	1,809	.....	209
Montana	247,873	145,698	99,579	46,119 D	4	..	1,443	664	489	.....
Nebraska	615,878	263,677	352,201	88,524 R	...	7	.....	.....	.....	.....
Nevada	53,174	31,945	21,229	10,716 D	3	..	.....	.....	.....	.....
New Hampshire	235,419	125,292	110,127	15,165 D	4	..	.....	.....	.....	.....
New Jersey	1,974,920	1,016,442	945,478	70,964 D	16	..	2,837	872	8,836	455
New Mexico	183,014	103,699	79,315	24,384 D	3	..	.....	.....	.....	.....
New York	6,301,596	3,251,918‡	3,027,478	224,440 D	47	..	18,950	3,250	.....	.....
North Carolina	822,648	609,015	213,633	395,382 D	13	..	.....	.....	.....	.....
North Dakota	280,775	124,036	154,590	30,554 R	...	4	1,279	325	.....	545
Ohio	3,319,912	1,733,139	1,586,773	146,366 D	26	..	.....	.....	.....	.....
Oklahoma	826,212	474,313	348,872	125,441 D	11	..	.....	3,027	.....	.....
Oregon	481,240	258,415	219,555	38,860 D	5	..	398	154	191	2,527
Pennsylvania	4,078,714	2,171,035	1,889,848	281,187 D	36	..	10.967	.....	4,519	2,345
Rhode Island	321,148	182,182	138,653	43,529 D	4	..	.....	74	239	.....
South Carolina	99,830	95,470	1,727	93,743 D	8	..	.....	.....	.....	2,633
South Dakota	308,427	131,362	177,065	45,703 R	...	4	.....	.....	.....	.....
Tennessee	522,823	351,601	169,153	182,448 D	11	..	463	1,606	.....	.....
Texas	1,041,168	840,151	199,152	640,999 D	23	..	728	925	212	.....
Utah	247,819	154,277	93,151	61,126 D	4	..	200	.....	191	.....
Vermont	143,062	64,269	78,371	14,102 R	...	3	.....	.....	411	11
Virginia	346,607	235,961	109,363	126,598 D	11	..	282	882	71	48
Washington	793,833	462,145	322,123	140,022 D	8	..	4,586	1,686	2,626	667
West Virginia	868,076	495,662	372,414	123,248 D	8	..	.....	.....	.....	.....
Wisconsin	1,405,540	704,821	679,206	25,615 D	12	...	15,071	2,148	2,394	1,900
Wyoming	112,240	59,287	52,633	6,654 D	3	..	148	172	.....	.....
Total	49,820,312	27,244,160	22,305,198	4,938,962 D	449	82	100,264	58,604	48,579	63,507

* Breakdown of other votes: Independent Democrat 22,428; Progressive 16,506; Socialist Labor 10,164; Independent Republican 4,550; Industrial 2,553; Jeffersonian Democrat 2,496; Industrial Government 1,518; Labor Party of Maryland 657; Alfred Knutson 545; Republican (Tolbert Faction) 137; scattering 1,953.

† Includes 798 Union votes.

‡ Includes 417,418 American Labor votes.

Presidential Election of 1944

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; Harry S. Truman, Missouri.

Republican—Thomas E. Dewey, New York; John W. Bricker, Ohio.

Socialist—Norman Thomas, New York; Darlington Hoopes, Pennsylvania.

Prohibition—Claude A. Watson, California; Andrew Johnson, Kentucky.

Socialist Labor*—Edward A. Teichert, Pennsylvania; Arla A. Albaugh, Ohio.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Prohib.	Soc. Lab.	Others†
abama	244,743	198,918	44,540	154,378 D	11	..	190	1,095	.....	.....
izona	137,634	80,926	56,287	24,639 D	4	..	.....	421	.....	.....
kansas	212,956	148,965	63,551	85,414 D	9	..	440	.....	.....	.....
lifornia	3,520,875	1,988,564	1,512,965	475,599 D	25	..	3,923	14,770	327	326
lorado	505,039	234,331	268,731	34,400 R	...	6	1,977	.....	.....	.....
nnecticut	831,990	435,146	390,527	44,619 D	8	..	5,097	.....	1,220	.....
laware	125,361	68,166	56,747	11,419 D	3	..	154	294	.....	.....
rida	482,592	339,377	143,215	196,162 D	8	..	.....	.....	.....	.....
orgia	328,109	268,187	56,507	211,680 D	12	..	6	36	.....	3,373
aho	208,321	107,399	100,137	7,262 D	4	..	282	503	.....	.....
nois	4,036,061	2,079,479	1,939,314	140,165 D	28	..	180	7,411	9,677	.....
diana	1,672,091	781,403	875,891	94,488 R	...	13	2,223	12,574	.....	.....
wa	1,052,599	499,876	547,267	47,391 R	...	10	1,511	3,752	193	.....
nsas	733,776	287,458	442,096	154,638 R	...	8	1,613	2,609	.....	.....
ntucky	867,921	472,589	392,448	80,141 D	11	..	535	2,023	326	.....
uisiana	349,383	281,564	67,750	213,814 D	10	..	.....	.....	.....	69
ine	296,400	140,631	155,434	14,803 R	...	5	.....	.....	335	.....
aryland	608,439	315,490	292,949	22,541 D	8	..	.....	.....	.....	.....
assachusetts	1,960,665	1,035,296	921,350	113,946 D	16	..	.....	973	2,780	266
chigan	2,205,223	1,106,899	1,084,423	22,476 D	19	..	4,598	6,503	1,264	1,536
nnesota	1,125,529	589,864	527,416	62,448 D	11	..	5,073	.....	3,176	.....
ssissippi	180,080	158,515	3,742	154,773 D	9	..	.....	.....	.....	17,823
ssouri	1,571,677	807,356	761,175	46,181 D	15	..	1,751	1,175	220	.....
ntana	207,355	112,556	93,163	19,393 D	4	..	1,296	340	.....	.....
braska	563,126	233,246	329,880	96,634 R	...	6	.....	.....	.....	.....
vada	54,234	29,623	24,611	5,012 D	3	..	.....	.....	.....	.....
w Hampshire	229,625	119,663	109,916	9,747 D	4	..	46	.....	.....	.....
w Jersey	1,963,761	987,874	961,335	26,539 D	16	..	3,358	4,255	6,939	.....
w Mexico	152,225	81,389	70,688	10,701 D	4	..	.....	148	.....	.....
w York	6,316,790	3,304,238‡	2,987,647	316,591 D	47	..	10,553	.....	14,352	.....
rth Carolina	790,554	527,399	263,155	264,244 D	14	..	.....	.....	.....	.....
rth Dakota	220,171	100,144	118,535	18,391 R	...	4	943	549	.....	.....
io	3,153,056	1,570,763	1,582,293	11,530 R	...	25	.....	.....	.....	.....
klahoma	722,636	401,549	319,424	82,125 D	10	..	.....	1,663	.....	.....
egon	480,147	248,635	225,365	23,270 D	6	..	3,785	2,362	.....	.....
nnsylvania	3,794,793	1,940,479	1,835,054	105,425 D	35	..	11,721	5,750	1,789	.....
ode Island	299,276	175,356	123,487	51,869 D	4	..	.....	433	.....	.....
uth Carolina	103,375	90,601	4,547	86,054 D	8	..	.....	365	.....	7,862
uth Dakota	232,076	96,711	135,365	38,654 R	...	4	.....	.....	.....	.....
nnessee	510,692	308,707	200,311	108,396 D	12	..	792	882	....	.....
xas	1,150,326	821,605	191,425	630,180 D	23	..	593	1,013	.....	135,690
ah	248,319	150,088	97,891	52,197 D	4	..	340	.....	.....	.....
rmont	125,361	53,820	71,527	17,707 R	...	3	.....	.....	.....	14
rginia	388,485	242,276	145,243	97,033 D	11	..	417	459	90	.....
shington	856,328	486,774	361,689	125,085 D	8	..	3,824	2,396	1,645	.....
st Virginia	715,596	392,777	322 819	69,958 D	8	..	.....	.....	.....	.....
sconsin	1,339,152	650,413	674,532	24,119 R	...	12	13,205	.....	1,002	.....
yoming	101,340	49,419	51,921	2,502 R	...	3	.....	.....	.....	.....
tal	47,976,263	25,602,504	22,006,285	3,596,219 D	432	99	80,426	74,754	45,335	166,959

* Industrial Government candidates in Minnesota, New York and Pennsylvania.

† Breakdown of other votes: Texas Regulars 135,439; Regular Democrat 9,964; Independent Republican 7,859; Southern Democrat 7,799; Independent Democrat 3,373; America First 1,781; Republican (Tolbert Faction) 63; Scattering 681.

‡ Includes 496,405 American Labor and 329,235 Liberal votes.

Presidential Election of 1948

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Democratic—Harry S. Truman, Missouri; Alben Barkley, Kentucky.
Republican—Thomas E. Dewey, New York; Earl Warren, California.
States' Rights Democratic—J. Strom Thurmond, South Carolina; Fielding L. Wright, Mississippi.
Progressive[1]—Henry A. Wallace, Iowa; Glen H. Taylor, Idaho.
Socialist—Norman Thomas, New York; Tucker P. Smith, Michigan.
Prohibition—Claude A. Watson, California; Dale Learn, Pennsylvania.
Socialist Labor[2]—Edward A. Teichert, Pennsylvania; Stephen Emery, New York.

State	Total	Dem.	Rep.	SR Dem.	Plur.	Electoral D	Electoral R	Electoral S	Prog.[1]	Others
Alabama	214,980	(4)	40,930	171,443	130,513 S	..	..	11	1,522	1,089
Arizona	177,065	95,251	77,597	.....	17,654 D	4	..	..	3,310	907
Arkansas	242,475	149,659	50,959	40,068	98,700 D	9	..	..	751	1,038
California	4,021,538	1,913,134	1,895,269	1,228[5]	17,865 D	25	..	..	190,381	21,526
Colorado	515,237	267,288	239,714	.....	27,574 D	6	..	..	6,115	2,120
Connecticut	883,518	423,297	437,754	.....	14,457 R	..	8	..	13,713	8,754
Delaware	139,073	67,813	69,588	.....	1,775 R	..	3	..	1,050	622
Florida	577,643	281,988	194,280	89,755	87,708 D	8	..	..	11,620	.....
Georgia	418,760	254,646	76,691	85,055	169,591 D	12	..	..	1,636	732
Idaho	214,816	107,370	101,514	.....	5,856 D	4	..	..	4,972	960
Illinois	3,984,046	1,994,715	1,961,103	.....	33,612 D	28	..	..	.....	28,228
Indiana	1,656,214	807,833	821,079	.....	13,246 R	..	13	..	9,649	17,653
Iowa	1,038,264	522,380	494,018	.....	28,362 D	10	..	..	12,125	9,741
Kansas	788,819	351,902	423,039	.....	71,137 R	..	8	..	4,603	9,275
Kentucky	822,658	466,756	341,210	10,411	125,546 D	11	..	..	1,567	2,714
Louisiana	416,326	136,344	72,657	204,290	67,946 S	..	..	10	3,035	.....
Maine	264,787	111,916	150,234	.....	38,318 R	..	5	..	1,884	753
Maryland	596,735	286,521	294,814	2,476[5]	8,293 R	..	8	..	9,983	2,941
Massachusetts	2,155,347	1,151,788	909,370	.....	242,418 D	16	..	..	38,157	56,032
Michigan	2,109,609	1,003,448	1,038,595	.....	35,147 R	..	19	..	46,515	21,051
Minnesota	1,212,226	692,966[6]	483,617	.....	209,349 D	11	..	..	27,866	7,777
Mississippi	192,190	19,384[7]	5,043[8]	167,538[9]	148,154 S	..	..	9	225	.....
Missouri	1,578,628	917,315	655,039	.....	262,276 D	15	..	..	3,998	2,276
Montana	224,278	119,071	96,770	.....	22,301 D	4	..	..	7,313	1,124
Nebraska	488,939	224,165	264,774	.....	40,609 R	..	6	..	.....	.....
Nevada	62,117	31,291	29,357	.....	1,934 D	3	..	..	1,469	.....
New Hampshire	231,440	107,995	121,299	7	13,304 R	..	4	..	1,970	169
New Jersey	1,949,555	895,455	981,124	.....	85,669 R	..	16	..	42,683	30,293
New Mexico	185,767	105,464	80,303	.....	25,161 D	4	..	..	.....	.....
New York	6,274,527	2,780,204[10]	2,841,163	.....	60,959 R	..	47	..	509,559	143,601
North Carolina	791,209	459,070	258,572	69,652	200,498 D	14	..	..	3,915	.....
North Dakota	220,716	95,812	115,139	374	19,327 R	..	4	..	8,391	1,000
Ohio	2,936,071	1,452,791	1,445,684	.....	7,107 D	25	..	..	37,596	.....
Oklahoma	721,599	452,782	268,817	.....	183,965 D	10	..	..	.....	.....
Oregon	524,080	243,147	260,904	.....	17,757 R	..	6	..	14,978	5,051
Pennsylvania	3,735,149	1,752,426	1,902,197	.....	149,771 R	..	35	..	55,161	25,365
Rhode Island	326,098	188,619	134,892	.....	53,727 D	4	..	..	2,587	.....
South Carolina	142,571	34,423	5,386	102,607	68,184 S	..	..	8	154	1
South Dakota	250,105	117,653	129,651	.....	11,998 R	..	4	..	2,801	.....
Tennessee	550,283	270,402	202,914	73,815	67,488 D	11	..	1	1,864	1,288
Texas	1,147,245	750,700	282,240	106,909	468,460 D	23	..	..	3,764	3,632
Utah	276,305	149,151	124,402	.....	24,749 D	4	..	..	2,679	73
Vermont	123,382	45,557	75,926	.....	30,369 R	..	3	..	1,279	620
Virginia	419,256	200,786	172,070	43,393	28,716 D	11	..	..	2,047	960
Washington	905,059	476,165	386,315	.....	89,850 D	8	..	..	31,692	10,887
West Virginia	748,750	429,188	316,251	.....	112,937 D	8	..	..	3,311	.....
Wisconsin	1,276,800	647,310	590,959	.....	56,351 D	12	..	..	25,282	13,249
Wyoming	101,425	52,354	47,947	.....	4,407 D	3	..	..	931	193
Total	48,833,680	24,105,695	21,969,170	1,169,021	2,136,525 D	303	189	39	1,156,103	433,691

[1] Independent Progressive in California; Peoples in Connecticut; Independent in Kansas, Mississippi, Ohio, South Dakota; American Labor in New York; People's Progressive in Wisconsin. [2] Industrial Government in Minnesota, New York, Pennsylvania; Independent Socialist Labor in Wisconsin. [3] Breakdown of other votes: Socialist 139,009; Prohibition 103,216; Socialist Labor 29,061; Socialist Workers 13,613; Christian Nationalist 42; Greenback 6; Vegetarian 4; blank 145,320; write-in 1,683; scattering 1,666; void 71. [4] Not on ballot. [5] Write-in votes. [6] Including Farmer-Labor votes. [7] National Democratic. [8] Contains 2,595 Republican and 2,448 Independent Republican votes. [9] Mississippi Democratic. [10] Includes 222,562 Liberal votes.

Presidential Election of 1952

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Republican—Dwight D. Eisenhower, New York; Richard M. Nixon, California.
Democratic—Adlai E. Stevenson, Illinois; John J. Sparkman, Alabama.
Progressive[1]—Vincent Hallinan, California; Mrs. Charlotta A. Bass, New York.
Prohibition—Stuart Hamblen, California; Enoch A. Holtwick, Illinois.
Socialist Labor[2]—Eric Hass, New York; Stephen Emery, New York.
Socialist—Darlington Hoopes, Pennsylvania; Samuel H. Friedman, New York.

State	Total	Rep.	Dem.	Plur.	Electoral R	Electoral D	Prog.[1]	Prohib.	Soc. Lab.[2]	Others[3]
abama	426,120	149,231	275,075	125,844 D	..	11	....	1,814	....	....
izona	260,570	152,042	108,528	43,514 R	4	..	....	....	....	....
kansas	404,800	177,155	226,300	49,145 D	..	8	....	886	1	458
lifornia	5,141,849	2,897,310	2,197,548	699,762 R	32	..	24,106	15,653	....	7,232
lorado	630,103	379,782	245,504	134,278 R	6	..	1,919	....	352	2,546
nnecticut	1,096,911	611,012	481,649	129,363 R	8	..	....	....	535	3,715
laware	174,025	90,059	83,315	6,744 R	3	..	155	234	242	20
rida	989,337	544,036	444,950	99,086 R	10	..	....	....	....	351
rgia	655,803	198,979	456,823	257,844 D	..	12	....	....	....	1
aho	276,231	180,707	95,081	85,626 R	4	..	443	....	....	....
inois	4,481,058	2,457,327	2,013,920	443,407 R	27	..	....	....	9,363	448
diana	1,955,325	1,136,259	801,530	334,729 R	13	..	1,222	15,335	979	....
wa	1,268,773	808,906	451,513	357,393 R	10	..	5,085	2,882	139	248
nsas	896,166	616,302	273,296	343,006 R	8	..	....	6,038	....	530
ntucky	993,148	495,029	495,729	700 D	..	10	336	1,161	893	....
uisiana	651,952	306,925	345,027	38,102 D	..	10	....	....	....	....
aine	351,786	232,353	118,806	113,547 R	5	..	332	....	156	139
aryland	902,074	499,424	395,337	104,087 R	9	..	7,313	....	....	....
assachusetts	2,383,398	1,292,325	1,083,525	208,800 R	16	..	4,636	886	1,957	69
chigan	2,798,592	1,551,529	1,230,657	320,872 R	20	..	3,922	10,331	1,495	658
innesota	1,379,483	763,211	608,458[4]	154,753 R	11	..	2,666	2,147	2,383	618
ssissippi	285,532	([5])	172,566	59,600 D	..	8	....	....	....	112,966
ssouri	1,892,062	959,429	929,830	29,599 R	13	..	987	885	169	762
ontana	265,037	157,394	106,213	51,181 R	4	..	723	548	....	159
ebraska	609,660	421,603	188,057	233,546 R	6	..	....	....	....	....
evada	82,190	50,502	31,688	18,814 R	3	..	....	....	....	....
w Hampshire	272,950	166,287	106,663	59,624 R	4	..	....	....	....	....
w Jersey	2,419,554	1,374,613	1,015,902	358,711 R	16	..	5,589	989	5,815	16,646
w Mexico	238,608	132,170	105,661	26,509 R	4	..	....	297	35	445
w York	7,128,241	3,952,815	3,104,601[6]	848,214 R	45	..	64,211	....	1,560	5,054
rth Carolina	1,210,910	558,107	652,803	94,696 D	..	14	....	....	....	....
rth Dakota	270,127	191,712	76,694	115,018 R	4	..	344	302	....	1,075
io	3,700,758	2,100,456	1,600,302	500,154 R	25	..	....	....	....	....
klahoma	948,984	518,045	430,939	87,106 R	8	..	....	....	....	....
egon	695,059	420,815	270,579	150,236 R	6	..	....	....	....	3,665
nnsylvania	4,580,717	2,415,789	2,146,269	269,520 R	32	..	4,200	8,771	1,347	4,341
ode Island	414,498	210,935	203,293	7,642 R	4	..	187	....	83	....
uth Carolina	341,086	168,082[7]	173,004	4,922 D	..	8	....	....	....	....
uth Dakota	294,283	203,857	90,426	113,431 R	4	..	....	....	....	....
nnessee	892,553	446,147	443,710	2,437 R	11	..	885	1,432	....	379
xas	2,076,006	1,102,878	969,288	133,590 R	24	..	294	1,983	....	1,563
ah	329,554	194,190	135,364	58,826 R	4	..	....	....	....	....
rmont	153,539	109,717	43,355	66,362 R	3	..	282	....	....	185
rginia	619,689	349,037	268,677	80,360 R	12	..	311	....	1,160	504
ashington	1,102,708	599,107	492,845	106,262 R	9	..	2,460	....	633	7,663
est Virginia	873,548	419,970	453,578	33,608 D	..	8	....	....	....	....
isconsin	1,607,370	979,744	622,175	357,569 R	12	..	....	....	....	5,451
yoming	129,251	81,047	47,934	33,113 R	3	..	....	194	36	40
tal	61,551,978	33,824,351	27,314,987[8]	6,509,364 R	442	89	132,608	72,768	29,333	177,931

[1] Independent Progressive in California; Peace Progressive in Massachusetts; American Labor in New York. [2] Industrial Government in Minnesota, New York and Pennsylvania. [3] Breakdown of Other votes: Independent (pledged to Republican candidate in Miss.), 112,966; Socialist, 18,322; Christian Nationalist, 10,557; Socialist Workers, 8,956; write-in, 4,431; Poor Man's, 4,203; scattering, 4,040; Independent, 3,665; Constitution, 2,911; Vincent Hallinan (independent in Wis.), 2,174; People's party of Connecticut, 1,466; Farrell Dobbs (independent in Wis.), 1,350; Darlington Hoopes (independent in Wis.), 1,157; Eric Hass (independent in Wis.), 770; Social Democrat, 504; America First, 233; Independent Progressive, 225; Liberty, 1. [4] Democratic-Farmer Labor votes. [5] 112,966 Independent votes were pledged to the Republican candidate; these are shown as Other votes. [6] Includes 416,711 Liberal votes. [7] Includes 158,289 votes for separate set of electors for Republican candidates by petition.

Electoral Vote for President, 1888-1924

States	1888		1892			1896		1900		1904		1908		1912			1916		1920		1924		
	Harrison, Rep.	Cleveland, Dem.	Cleveland, Dem.	Harrison, Rep.	Weaver, Peo.	McKinley, Rep.	Bryan, Dem.	McKinley, Rep.	Bryan, Dem.	Roosevelt, Rep.	Parker, Dem.	Taft, Rep.	Bryan, Dem.	Wilson, Dem.	Taft, Rep.	Roosevelt, Prog.	Wilson, Dem.	Hughes, Rep.	Harding, Rep.	Cox, Dem.	Coolidge, Rep.	Davis, Dem.	La Follette, Prog.
Alabama	10		11			11		11		11		11		12			12		12		12		
Arizona														3			3		3		3		
Arkansas	7		8			8		8		9		9		9			9		9		9		
California	8		8	1		8	1	9		10		10		2		11	13		13		13		
Colorado	3				4		4		4	5		5		6			6		6		6		
Connecticut	6		6			6		6		7		7		7			7		7		7		
Delaware	3		3			3		3		3		3		3			3		3		3		
Florida	4		4			4		4		5		5		6			6		6		6		
Georgia	12		13			13		13		13		13		14			14		14		14		
Idaho					3	3		3		3		3		4			4		4		4		
Illinois	22		24			24		24		27		27		29			29		29		29		
Indiana	15		15			15		15		15		15		15			15		15		15		
Iowa	13		13			13		13		13		13		13			13		13		13		
Kansas	9		10			10		10		10		10		10			10		10		10		
Kentucky	13		13			12	1	13		13		13		13			13		13		13		
Louisiana	8		8			8		8		9		9		10			10		10		10		
Maine	6		6			6		6		6		6		6			6		6		6		
Maryland	8		8			8		8		1	7	2	6	8			8		8		8		
Massachusetts	14		15			15		15		16		16		18			18		18		18		
Michigan	13		5	9		14		14		14		14		15			15		15		15		
Minnesota	7		9			9		9		11		11		12			12		12		12		
Mississippi	9		9			9		9		10		10		10			10		10		10		
Missouri	16		17			17		17		18		18		18			18		18		18		
Montana			3			3		3		3		3		4			4		4		4		
Nebraska	5		8			8		8		8		8		8			8		8		8		
Nevada	3				3	3		3		3		3		3			3		3		3		
New Hampshire	4		4			4		4		4		4		4			4		4		4		
New Jersey	9		10			10		10		12		12		14			14		14		14		
New Mexico														3			3		3		3		
New York	36		36			36		36		39		39		45			45		45		45		
North Carolina	11		11			11		11		12		12		12			12		12		12		
North Dakota			1	1	1	3		3		4		4		5			5		5		5		
Ohio	23		1	22		23		23		23		23		24			24		24		24		
Oklahoma												7		10			10		10		10		
Oregon	3			3	1	4		4		4		4		5			5		5		5		
Pennsylvania	30		32			32		32		34		34		38			38		38		38		
Rhode Island	4		4			4		4		4		4		5			5		5		5		
South Carolina	9		9			9		9		9		9		9			9		9		9		
South Dakota			4			4		4		4		4		5			5		5		5		
Tennessee	12		12			12		12		12		12		12			12		12		12		
Texas	13		15			15		15		18		18		20			20		20		20		
Utah						3		3		3		3		4			4		4		4		
Vermont	4		4			4		4		4		4		4			4		4		4		
Virginia	12		12			12		12		12		12		12			12		12		12		
Washington			4			4		4		5		5		7			7		7		7		
West Virginia	6		6			6		6		7		7		8			8		8		8		
Wisconsin	11		12			12		12		12		13		13			13		13				1
Wyoming			3			3		3		3		3		3			3		3		3		
Total	233	168	277	145	22	271	176	292	155	336	140	321	162	435	8	88	277	254	404	127	382	136	13

NOTE: For electoral votes by state in elections later than 1924, see preceding pages.

Qualifications for Voting in the 48 States

Source: Questionnaires to the states.

State	Minimum length of U. S. citizenship	Residence[1]			Literacy test	Poll tax[2]
		State	County	District		
abama	.....	2 yr.	1 yr.	3 mo.[3]	Yes	$1.50[14]
izona	1 yr.	1 yr.	30 da.	30 da.	Yes	....
kansas	.....	1 yr.	6 mo.	30 da.[4]	....	1.00
lifornia	3 mo.	1 yr.	3 mo.	54 da.[4]	Yes	....
lorado	.....	1 yr.	3 mo.	30 da.[5]	....	....
nnecticut	.....	1 yr.	....	6 mo.[6]	Yes	....
laware	.....	1 yr.	3 mo.	30 da.	Yes	....
rida	.....	1 yr.	6 mo.	.....	....	....
orgia[7]	.....	1 yr.	6 mo.	6 mo.	Yes	....
aho	(8)	6 mo.	30 da.	.....	....	....
inois	.....	1 yr.	3 mo.	30 da.	....	....
diana	.....	6 mo.	2 mo.[9]	30 da.[4]	....	....
wa	.....	6 mo.	60 da.	10 da.[4]	....	....
ansas	.....	6 mo.	.....	30 da.[10]	....	....
entucky	.....	1 yr.	6 mo.	60 da.[4]	....	....
uisiana	.....	2 yr.	1 yr.[11]	3 mo.[19]	Yes	....
aine	.....	6 mo.	.....	3 mo.[6]	Yes	....
aryland	.....	1 yr.	6 mo.	6 mo.	....	....
assachusetts	.....	1 yr.	.....	6 mo.[6]	Yes	....
ichigan	.....	6 mo.	.....	30 da.[6]	....	....
innesota	3 mo.	6 mo.	.....	30 da.	....	....
ississippi	.....	2 yr.	1 yr.	1 yr.	(12)	2.00
issouri	.....	1 yr.	2 mo.	2 mo.[6]	....	....
ontana	.....	1 yr.	30 da.	30 da.[4]	....	....
ebraska	.....	6 mo.	40 da.	10 da.	....	....
evada	.....	6 mo.	30 da.	10 da.[4]	....	....
ew Hampshire	.....	6 mo.	.....	6 mo.[6]	Yes	....
ew Jersey	.....	1 yr.	5 mo.	.....	....	....
ew Mexico	.....	1 yr.	3 mo.	30 da.[4]	....	....
ew York	90 da.	1 yr.	4 mo.	30 da.	Yes	....
orth Carolina	.....	1 yr.	4 mo.	4 mo.	Yes	....
orth Dakota	.....	1 yr.	3 mo.	30 da.[4]	....	....
hio	.....	1 yr.	40 da.	40 da.[4]	....	....
klahoma	.....	1 yr.	6 mo.	30 da.[4]	....	....
regon	.....	6 mo.	.....	30 da.[4]	Yes	....
nnsylvania	1 mo.	1 yr.[13]	.....	2 mo.	....	....
hode Island	1 yr.	1 yr.	.....	6 mo.[6]	....	....
outh Carolina	2 yr.	2 yr.	1 yr.	4 mo.	....	(18)
outh Dakota	5 yr.	1 yr.	3 mo.	30 da.[4]	....	....
nnessee	.....	1 yr.	6 mo.	.....	....	....
exas	.....	1 yr.	6 mo.	.....	....	1.75[21]
tah	3 mo.	1 yr.	4 mo.	2 mo.[4]	....	....
rmont[20]	.....	1 yr.	.....	3 mo.[6,15]	....	....
rginia	.....	1 yr.	6 mo.[16]	30 da.[4]	Yes	1.50
ashington	.....	1 yr.	3 mo.	30 da.[17]	Yes	....
est Virginia	.....	1 yr.	2 mo.	.....	....	....
isconsin	.....	1 yr.	.....	10 da.	....	....
yoming	.....	1 yr.	60 da.	10 da.	(12)	....

[1] Registration of all or part of the voters is required in most states. [2] Annual levy. Although poll (or head) taxes re levied in several other states, those listed make payment of the tax a condition for voting. [3] Precinct or ward. Precinct. [6] City or town, and 15 days in precinct. [6] City or town. [7] Minimum voting age is 18; in all other states is 21. [8] First paper must have been taken out. [9] Township. [10] Township or ward. [11] Parish. [12] Must be able o read any section of state constitution. [13] 6 months if previously qualified elector or natural-born citizen of state. 1953 act makes poll tax noncumulative except for 2 years preceding election in which elector offers to vote. [15] To ualify to vote for representatives to general assembly or justices. [16] County, city, or town. [17] City, town, ward, or recinct. [18] Repealed in 1945. [19] Precinct; municipality 4 mo. [20] A person must take freeman's oath as qualifica- on for voting. [21] $1.50 levied by state; 25 cents levied by most counties, but not all.

Plurality and Majority

In order to win a plurality, a candidate must receive a greater number of votes than anyone unning against him. If he receives 50 votes, for example, and two other candidates receive 9 and 2, he will have a plurality of one vote over his closest opponent.

However, a candidate does not have a majority unless he receives more than 50% of the otal votes cast. In the example above, the candidate does not have a majority, because his 0 votes are less than 50% of the 101 votes cast.

If only two candidates receive votes, a plurality is necessarily a majority; but if more than wo candidates receive votes, it is possible for one to have a substantial plurality without a majority.

BIOGRAPHIES OF THE PRESIDENTS

GEORGE WASHINGTON

was born February 22, 1732 (February 11, 1731/2, old style) in Westmoreland County, Virginia. He early trained as a surveyor; but in 1752 he was appointed adjutant in the Virginia militia, and for the next three years he took an active part in the wars against the French and Indians, serving as General Braddock's aide in the disastrous campaign against Fort Duquesne. In 1759 he resigned from the militia, married Martha Dandridge Custis, a widow, and settled down as a gentleman farmer at Mount Vernon.

As a militiaman, he had been exposed to the arrogance of the British officers, and his experience as a planter with British commercial restrictions increased his anti-British sentiment. He opposed the Stamp Act of 1765 and after 1770 became increasingly prominent in organizing resistance. A delegate to the Continental Congress, Washington was selected as commander in chief of the Continental Army and took command at Cambridge, Massachusetts, on July 3, 1775.

Inadequately supported and sometimes covertly sabotaged by the Congress, in charge of troops who were inexperienced, badly equipped and impatient of discipline, Washington conducted the war on the policy of avoiding major engagements with the British and wearing them down by harassing tactics. His able generalship, along with the French alliance and the growing weariness within Britain, brought the war to a conclusion with the surrender of Cornwallis at Yorktown on October 19, 1781.

The chaotic years under the Articles of Confederation led Washington to return to public life in the hope of promoting the formation of a strong central government. He presided over the Constitutional Convention and yielded to the universal demand that he serve as first President. In office, he sought to unite the nation in the service of establishing the authority of new government at home and abroad. Greatly distressed by the emergence of the Hamilton-Jefferson rivalry, he worked to maintain neutrality but actually sympathized more with Hamilton. Following his unanimous re-election in 1792, his second term was dominated by the Federalists. His Farewell Address rebuked party spirit and warned against foreign entanglements.

He died at Mt. Vernon on December 14, 1799. Tall, dignified and impressive, Washington gave a public impression of austerity, though he was capable of gaiety in private. His life was characterized by a strict sense of duty to his people. The standard biographies are by Fitzpatrick, Ford, Hughes and Stephenson.

JOHN ADAMS

was born on October 30 (October 19, old style), 1735, at Braintree (now Quincy), Massachusetts. A Harvard graduate, he considered teaching and the ministry but finally turned to law and was admitted to the bar in 1758. He opposed the Stamp Act, served as lawyer for patriots indicted by the British and, by the time of the Continental Congresses, was in the vanguard of the movement for independence. In 1778 he went to France as commissioner. Subsequently he helped negotiate the peace treaty with Britain, and in 1785 became the U. S. envoy to London. Resigning in 1788, he was elected Vice President under Washington, and was re-elected in 1792.

Though a Federalist, Adams did not get along with Hamilton who sought to prevent his election to the presidency in 1796, and thereafter intrigued against his administration. Adams was chosen with 71 electoral votes to 68 for his closest competitor, Thomas Jefferson, who became Vice President. In 1798 Adams' independent policy averted a war with France but completed the break with Hamilton and the right-wing Federalists while, at the same time, the enactment of the Alien and Sedition Acts, directed against foreigners and against critics of the government, exasperated the Jeffersonian opposition. The split between Adams and Hamilton elected Jefferson in 1800. Adams retired to his home in Quincy, Massachusetts. He later corresponded with Jefferson and they died on the same day, July 4, 1826.

Stout, somewhat vain and irascible, Adams was honest, fearless and essentially fair-minded. His *Defence of the Constitutions of Government of the United States* (1787) contains original and striking if conservative political ideas. He married Abigail Smith in 1764, and their life together was long and happy. The standard biographies are by Morse and Chinard.

THOMAS JEFFERSON

was born on April 13 (April 2, old style), 1743, at Shadwell in Goochland (now Albemarle) County, Virginia. A William and Mary graduate, he studied law but from the start showed an interest in science and philosophy. His literary skill and political clarity brought him to the forefront

he revolutionary movement in Virginia. delegate to the Continental Congress, drafted the Declaration of Independ- e. In 1776 he entered the Virginia House Delegates and initiated a comprehensive rm program for the abolition of feudal vivals in land tenure and the separation church and state.

n 1779 he became governor, but consti- ional limitations on his power com- ed with his own lack of executive rgy caused an unsatisfactory adminis- tion, culminating in Jefferson's virtual ication when the British invaded Vir- la in 1781. He now retired to his beauti- home at Monticello, to his wife, Martha yles Skelton, whom he had married in 2 and who died in 1782, and to his ldren.

efferson's *Notes on Virginia* (1784–85) strate his many-faceted interests, his itless intellectual curiosity, his deep h in agrarian democracy. Sent to Con- ss in 1783, he helped lay down the imal system and drafted basic reports the organization of the western lands. 1785 he was appointed minister to nce, where the Anglo-Saxon liberalism had drawn from Locke was stimulated contact with the thought which would n ferment in the French Revolution. 1789 Washington appointed him Secre- y of State. While favoring the Consti- ion and a strengthened central govern- nt, Jefferson came to believe that Ham- n contemplated the establishment of a narchy. Growing differences resulted in ferson's resignation on Dec. 31, 1793. lected Vice President in 1796, Jefferson tinued to serve as spiritual leader of opposition to Federalism, particularly the repressive Alien and Sedition Acts. was elected President in 1801 by the use of Representatives as a result of milton's decision to throw the Federalist es to him rather than to Aaron Burr, o had tied him in electoral votes. The rchase of Louisiana from France in 1803, ugh in violation of his earlier consti- ional scruples, was the most notable act his administration. Re-elected in 1804 h 162 electoral votes to 14 for the Fed- list Charles C. Pinckney, Jefferson tried perately during his second term to keep United States out of the Napoleonic rs in Europe, employing to this end the popular embargo policy.

fter his retirement to Monticello in 9, he developed his interest in educa- n, founding the University of Virginia d watching its development with never- gging interest. He died at Monticello on y 4, 1826. Tall, loose-jointed, a poor aker, Jefferson had an enormous variety interests and skills, ranging from edu- ion and science to architecture and sic. Economically his conception of de- cracy presupposed an essentially rural community of small freeholds; but his deep and abiding faith in the common man provides inspiration for future gen- erations. The standard biographies are by Chinard, Bowers, Kimball, Randall and Malone.

JAMES MADISON

was born in Port Conway, Virginia, on March 16, 1751 (March 5, 1750/1, old style). A Princeton graduate, he joined the struggle for independence on his re- turn to Virginia in 1771. In the seventies and eighties he was active both in state politics, where he championed the Jeffer- son reform program, and in the Continen- tal Congress. He was influential in the Constitutional Convention as leader of the group favoring a strong central govern- ment and as recorder of the debates; and he subsequently wrote, in collaboration with Alexander Hamilton and John Jay, the *Federalist* papers to aid the campaign for the adoption of the Constitution.

In the new Congress, Madison soon emerged as the leader in the House of the men who opposed Hamilton's financial pro- gram and his pro-British leanings in for- eign policy. Retiring from Congress in 1797, he continued active in Virginia and drafted the Virginia Resolution protesting the Alien and Sedition Acts. His intimacy with Jefferson made him natural choice for Secretary of State in 1801.

In 1809 Madison succeeded Jefferson as President, with 122 electoral votes to 47 for the Federalist, C. C. Pinckney, and 6 scattering. His attractive wife, Dolly Payne Todd, whom he married in 1794, brought a new social sparkle to the executive man- sion. In the meantime, increasing tension with Britain culminated in the War of 1812—a war for which the United States was unprepared, and for which Madison lacked the executive talent to clear out incompetence and mobilize the nation's energies. Madison was re-elected in 1812, with 128 electoral votes to 89 for the Fede- ralist, De Witt Clinton. In 1814 the British actually captured Washington and forced Madison to flee to Virginia.

In his domestic program, Madison ca- pitulated to the Hamiltonian policies that he had resisted twenty years before, sign- ing bills to establish a United States Bank and a higher tariff. Following his presi- dency, he remained in retirement in Vir- ginia until his death on June 28, 1836. Small, wrinkled, unimpressive, Madison had an acute political intelligence but lacked executive force. The standard lives are by Hunt, Brant and Rives.

JAMES MONROE

was born on April 28, 1758, in Westmore- land County, Virginia. A William and Mary graduate, he served in the army during

the first years of the Revolution and was wounded at Trenton. He then entered Virginia politics and later national politics under the sponsorship of Jefferson. In 1786 he married Eliza Kortright.

Fearing centralization, Monroe opposed the adoption of the Constitution and, as senator from Virginia, was highly critical of the Hamiltonian program. In 1794 he was appointed minister to France where his ardent sympathies with the Revolution exceeded the wishes of the State Department. A troubled diplomatic career ended with his recall in 1796. From 1799 to 1802 he was governor of Virginia. In 1803 Jefferson sent him to France to help negotiate the Louisiana Purchase and for the next few years he was active in various continental negotiations.

In 1808 Monroe flirted with the radical wing of the Republican party, which opposed Madison's candidacy; but the presidential boom came to naught and, after a brief term as governor of Virginia in 1811, Monroe accepted Madison's offer of the State Department. During the war he vainly sought a field command and served as Secretary of War from Sept., 1814, to Mar., 1815.

Elected President in 1816 with 183 electoral votes to 34 for the Federalist Rufus King, and re-elected without opposition in 1820, Monroe, the last of the Virginia dynasty, pursued the course of systematic tranquilization which won for his terms the name "the era of good feeling." He continued Madison's surrender to the Hamiltonian domestic program, signed the Missouri Compromise, acquired Florida and, with the able assistance of his Secretary of State, John Quincy Adams, promulgated the Monroe Doctrine in 1823, declaring against foreign colonization or intervention in the Americas. He died in New York City on July 4, 1831.

A sound man of medium abilities, Monroe possessed qualities of judgment rather than of leadership. The standard biographies are by Morgan, Gilman and Styron.

JOHN QUINCY ADAMS

was born on July 11, 1767, at Braintree (now Quincy), Massachusetts, the son of John Adams. He spent his early years in Europe with his father, graduated from Harvard and entered law practice. His anti-Jeffersonian newspaper articles won him political attention. In 1794 he became minister to the Netherlands, the first of several diplomatic posts which occupied him until his return to Boston in 1801. In 1797 he married Louisa Catherine Johnson.

In 1803 he was elected to the Senate, nominally as a Federalist, but his repeated displays of independence on such issues as the Louisiana Purchase and the embargo caused his party to compel his resignation and ostracize him socially. In 1809 Madison rewarded him for his support of Jefferson by appointing him minister to St. Petersburg. He helped negotiate the Treaty of Ghent in 1814 and in 1815 became minister to London. In 1817 Monroe appointed him Secretary of State where he served with great distinction, gaining Florida from Spain without hostilities and playing an equal part with Monroe in formulating the Monroe Doctrine.

When no presidential candidate received a majority of electoral votes in 182[illegible] Adams, with the support of Henry Clay, was elected by the House in 1825 over Andrew Jackson who had the original plurality. Adams had ambitious plans of government activity to foster internal improvements and promote the arts and sciences, but congressional obstructionism combined with his own unwillingness or inability to play the role of a politician meant that little was accomplished. Retiring to Quincy after his defeat in 1828, he was elected to the House of Representatives in 18[illegible] where, though nominally a Whig, he pursued as ever an independent course. He led the fight to force Congress to receive anti-slavery petitions and fathered the Smithsonian Institution.

Stricken on the floor of the House, he died on February 23, 1848. Tactless, brusque, conscientious, a rough and savage debater, Adams spared neither himself nor his enemies. His long and detailed *Diary* gives a unique picture of the personalities and politics of the times. The standard biographies are by Morse and Clark.

ANDREW JACKSON

was born on March 15, 1767, in what is now generally agreed to be Waxhaw, South Carolina. After a turbulent boyhood as an orphan and a British prisoner, he moved west to Tennessee where he soon qualified for law practice but found time for such frontier pleasures as horse racing, cockfighting and dueling. His marriage to Rachel Donelson Robards in 1791 was complicated by subsequent legal uncertainties about the status of her divorce. During the seventeen-nineties Jackson served in the Tennessee constitutional convention, the federal House of Representatives, the federal Senate and the Tennessee supreme court.

After some years as a country gentleman living at the Hermitage near Nashville, Jackson in 1812 was given command of Tennessee troops sent against the Creeks. He defeated the Indians at Horseshoe Bend in 1814; subsequently he became a major general and won the Battle of New Orleans over veteran British troops though after the treaty of peace had been signed at Ghent. In 1818 General Jackson invaded Florida, captured Pensacola and hanged two Englishmen named Arbuthnot and

brister, creating an international inci-
t. A presidential boom began for him
1821 and in its service he returned to
Senate (1823–25). Though he won a
rality of electoral votes in 1824, he lost
the House when Clay threw his strength
Adams; he won easily in 1828 by an
toral vote of 178 to 83.

s President, Jackson greatly expanded
power and prestige of the presidential
e and carried through an unexampled
gram of domestic reform, vetoing the
to extend the United States Bank,
ving toward a hard-money currency pol-
and checking the program of federal
ernal improvements. He also vindicated
eral authority against South Carolina
h its doctrine of nullification and
inst France on the question of debts.
e support given his policies by the work-
men of the East as well as by the farm-
of the East, West and South resulted
his triumphant re-election in 1832 over
y by an electoral vote of 219 to 49, with
scattering and 2 not cast.

After watching the inauguration of his
nd-picked successor, Martin Van Buren,
kson retired to the Hermitage where
maintained a lively interest in national
airs until his death on June 8, 1845. A
l, dignified man with a drawn and
nkled face, Jackson has been endowed
partisan historians with a violence and
scibility he appears not to have pos-
sed. His great contribution was to ad-
t the presidential office and the demo-
tic doctrines of Jefferson to the new
ation created by the Industrial Revo-
ion. The standard biographies are by
nes, Bassett and Parton.

MARTIN VAN BUREN

s born on December 5, 1782, at Kinder-
ok, New York. After graduating from the
age school, he became a law clerk, en-
ed practice in 1803 and soon became
ive in state politics as state senator
l attorney general. In 1821 he was
cted to the United States Senate. He
ew the support of his efficient political
anization, known as the Albany Re-
acy, to William H. Crawford in 1824 and
Jackson in 1828. After leading the op-
ition to Adams' administration in the
ate, he served briefly as governor of
w York and resigned to become Jack-
's Secretary of State. He soon became
close personal terms with Jackson
l played an important part in turn-
the Jacksonian program from the
es intended by his original Western
kers.

n 1832 Van Buren became Vice Presi-
nt; in 1836, President, with an electoral
e of 170 against 124 scattered among
r opponents. The Panic of 1837 over-
adowed his term. He attributed it to
the overexpansion of the credit and favored the establishment of an independent treasury as repository for the federal funds. In 1840 he established a ten-hour day on public works. Defeated by Harrison in 1840, he was the leading contender for the Democratic nomination in 1844 until he publicly opposed immediate annexation of Texas and was subsequently beaten by the Southern delegations at the Baltimore convention. This incident increased his growing misgivings about the slave power.

After working behind the scenes among the antislavery Democrats, Van Buren joined in the movement which led to the Free-Soil party and became its candidate for President in 1848. He subsequently returned to the Democratic party while continuing to object to its pro-Southern policy. He died in Kinderhook on July 24, 1862. His *Autobiography* throws valuable sidelights on the political history of the times.

Small, erect, dapper, Van Buren had a reputation for slick politicking which won him such sobriquets as the Little Magician and the Red Fox of Kinderhook; but, as his later career showed, he was capable of taking firm and unpopular stands on public issues. His wife Hannah Hoes, whom he married in 1807, died in 1819.

The standard biographies are by Shepard and Lynch.

WILLIAM HENRY HARRISON

was born in Charles City County, Virginia, on February 9, 1773. Joining the army in 1791, he was active in Indian fighting in the Northwest, became secretary of the Northwest Territory in 1798 and governor of Indiana in 1800. He married Anna Symmes in 1795. Growing discontent over white encroachments on Indian lands led to the formation of an Indian alliance under Tecumseh to resist further aggressions. In 1811 Harrison won a nominal victory over the Indians at Tippecanoe and in 1813 a more decisive one at the Battle of the Thames, where Tecumseh was killed.

After resigning from the army in 1814, Harrison had an obscure career in politics and diplomacy, ending up in twenty years as a county recorder in Ohio. Nominated for President in 1835 as a military hero whom the conservative politicians hoped to be able to control, he ran surprisingly well against Van Buren in 1836. Four years later he defeated Van Buren by an electoral vote of 234 to 60 but caught pneumonia and died in Washington a month after his inauguration, April 4, 1841. Harrison's qualities were those of a soldier rather than of a statesman or political leader. The standard biographies are by Cleaves and Goebel.

JOHN TYLER

was born in Charles City County, Virginia, on March 29, 1790. A William and Mary graduate, he entered law practice and politics, serving in the House of Representatives (1816–21) and later as governor of Virginia (1825–27), and as senator. A thorough-going strict constructionist, he supported Crawford in 1824 and Jackson in 1828 but broke with Jackson over his Bank policy and became a member of the Southern state-rights group which cooperated with the Whigs. In 1836 he resigned from the Senate rather than follow instructions from the Virginia legislature to vote for a resolution expunging censure of Jackson from the Senate record.

Elected Vice President on the Whig ticket in 1840, Tyler succeeded to the presidency on Harrison's death. His strict-constructionist views soon caused a split with the Henry Clay wing of the Whig party and a stalemate on domestic questions. Tyler's more considerable achievements were his support of the Webster-Ashburton Treaty with Britain and his success in bringing about the annexation of Texas through joint congressional resolution.

After his presidency he lived in retirement in Virginia until the outbreak of the Civil War when he emerged briefly as chairman of a peace convention and then as delegate to the provisional Congress of the Confederacy. He died on January 18, 1862. He was married first to Letitia Christian March in 1813 and, two years after her death in 1842, to Julia Gardiner. Witty, amiable, courteous, Tyler was a Virginia gentleman whose presidency was hamstrung by the basic contradiction between his own ideas and those of the party which put him on the ticket as Vice President. The standard biographies are by Chitwood and Tyler.

JAMES KNOX POLK

was born in Mecklenburg County, North Carolina, on November 2, 1795. A graduate of the University of North Carolina, he moved west to Tennessee, was admitted to the bar and soon became prominent in state politics. In 1825 he was elected to the House of Representatives where he opposed Adams and, after 1829, became Jackson's floor leader in the fight against the Bank. In 1835 he became Speaker of the House. In 1839 he was elected governor of Tennessee but was beaten in tries for re-election in 1841 and 1843.

The supporters of Van Buren for the Democratic nomination in 1844 counted on Polk as his running mate; but, when Van Buren's stand on Texas alienated Southern support, the convention swung to Polk on the ninth ballot. He was elected over Henry Clay, the Whig candidate, by an electoral vote of 170 to 105. Rapidly dis illusioning those who thought that h would not run his own administratio Polk proceeded steadily and precisely t achieve four major objectives—the acquisi tion of California, the settlement of th Oregon question, the reduction of the tarif and the establishment of the independen treasury. He also enlarged the Monroe Doc trine to exclude all non-American inte vention in American affairs, whether fo cible or not, and he forced Mexico into war which he waged to a successful con clusion. His wife Sarah Childress, whom he married in 1824, was a woman of charm and ability. Polk died in Nashville, Ten nessee, on June 15, 1849.

Serious, hardworking, lacking in colo Polk has long been underrated by his torians who mistakenly regarded him as slaveholders' puppet; in fact, few presi dents have so thoroughly controlled the own administration or have so ably ac complished the purposes they set for them selves. Polk's *Diary* reflects the mood an problems of his presidency. The standar biography is by McCormac.

ZACHARY TAYLO

was born at Montebello, Orange County Virginia, on November 24, 1784. Embark ing on a military career in 1808, Taylo fought in the War of 1812, the Black Hawk War and the Seminole War, holding in be tween garrison jobs on the frontier or desk jobs in Washington. A brigadier general a a result of his victory over the Seminole at Lake Okeechobee (1837), Taylor held succession of Southwestern commands an in 1846 established a base on the Ri Grande, where his forces engaged in hos tilities which precipitated the war with Mexico. He captured Monterrey in Sept 1846, and, disregarding Polk's orders t stay on the defensive, defeated Santa Anna at Buena Vista in February, 1847, endin the war in the northern provinces.

Though Taylor had never cast a vot for President, his party affiliations were Whiggish, and his availability was in creased by his difficulties with Polk. H was elected President over the Democra Lewis Cass by an electoral vote of 163 t 127. During the revival of the slaver controversy, which was to result in th Compromise of 1850, Taylor began to tak an increasingly firm stand against appeas ing the South; but he died in Washingto on July 9, 1850, in the midst of the figh over the Compromise. He married Margare Mackall Smith in 1810. His bluff and simpl soldierly qualities won him the name o Old Rough and Ready. During his brie term as President he displayed a growin insight into political questions. The stand ard biographies are by Hamilton and b Bent and McKinley.

MILLARD FILLMORE

was born at Locke, Cayuga County, New York, on January 7, 1800. A lawyer, he entered politics as an Antimason under the sponsorship of Thurlow Weed, editor and party boss, and subsequently followed Weed into the Whig party. He served in the House of Representatives (1833–35 and 1837–43) and played a leading role in writing the tariff of 1842. Defeated for governor of New York in 1844, he became comptroller in 1848, was put on the Whig ticket with Taylor as a concession to the Clay wing of the party and became President upon Taylor's death in 1850.

As President, Fillmore broke with Weed and William H. Seward and associated himself with the pro-Southern Whigs, supporting the Compromise of 1850. Defeated for the Whig nomination in 1852, he ran for President in 1856 as candidate of the American or Know-Nothing party, which sought to unite the country against foreigners in the alleged hope of diverting it from the explosive slavery issue. Fillmore opposed Lincoln during the Civil War. He died in Buffalo on March 8, 1874. He was married in 1826 to Abigail Powers, who died in 1853, and in 1858 to Caroline Carmichael McIntosh. Urbane, gracious, colorless and weak, Fillmore was an undistinguished President. The standard biography is by Griffis.

FRANKLIN PIERCE

was born at Hillsboro, New Hampshire, on November 23, 1804. A Bowdoin graduate and lawyer, he won rapid political advancement in the Democratic party, in part because of the prestige of his father, Governor Benjamin Pierce. By 1831 he was Speaker of the New Hampshire House of Representatives; from 1833 to 1837 he served in the federal House and from 1837 to 1842 in the Senate. His wife, Jane Means Appleton, whom he had married in 1834, disliked Washington and the somewhat dissipated life led by Pierce; and in 1842 Pierce, resigning from the Senate, took up a successful law practice in Concord, New Hampshire.

During the Mexican War Pierce was a brigadier general. Thereafter he continued to oppose antislavery tendencies within the Democratic party. As a result, he was the Southern choice to break the deadlock at the Democratic convention of 1852 and was nominated on the 49th ballot. Pierce rolled up 254 electoral votes to 42 for Winfield Scott, the Whig candidate.

As President, Pierce followed a course of appeasing the South at home and of playing with schemes of territorial expansion abroad. The failure of both his foreign and domestic policies prevented his renomination; and he died in Concord, New Hampshire, on October 8, 1869, in relative obscurity. A kindly and courteous person, Pierce was weak, unstable and lacking in presidential qualities. The standard biography is by Nichols.

JAMES BUCHANAN

was born near Mercersburg, Pennsylvania, on April 23, 1791. A Dickinson graduate and a lawyer, he entered Pennsylvania politics as a Federalist. With the disappearance of the Federalist party, he became a Jacksonian Democrat. He served with ability in the House (1821–31), as minister to St. Petersburg (1832–33) and in the Senate (1834–45), and in 1845 became Polk's Secretary of State. Disappointed in the presidential nomination in 1852, Buchanan became minister to Britain in 1853 where he participated with other American diplomats in Europe in drafting the expansionist Ostend Manifesto.

In 1856 Buchanan received the Democratic nomination and won the election, gaining 174 electoral votes to 114 for John C. Frémont, the Republican candidate, and 8 for Millard Fillmore, American party. The growing crisis over slavery presented Buchanan with problems he lacked the will to tackle. His appeasement of the South alienated the Stephen Douglas wing of the Democratic party without reducing Southern militancy on slavery issues. While denying the right of secession, Buchanan also denied that the federal government could do anything about it. He supported the administration during the Civil War and died in Lancaster, Pennsylvania, on June 1, 1868.

The only President to remain a bachelor throughout his term, Buchanan used his charming niece Harriet Lane as White House hostess. Legalistic, indecisive and timorous as President, Buchanan filled his other public offices capably. The standard biography is by Curtis.

ABRAHAM LINCOLN

was born in Hardin (now Larue) County, Kentucky, on February 12, 1809. His family moved to Indiana and then to Illinois, and Lincoln gained what education he could along the way. While reading law, he worked in a store, managed a mill, surveyed, and split rails. In 1834 he went to the state legislature as a Whig and became the party's floor leader. For the next twenty years he remained in law practice in Springfield, except for a single term (1847–49) in Congress where he denounced the Mexican War. In 1855 he was a candidate for senator and in 1856 he joined the new Republican party.

A leading but unsuccessful candidate for the vice-presidential nomination with Frémont, Lincoln gained national attention in 1858 when, as Republican candidate for

senator from Illinois, he engaged in a series of debates with Stephen A. Douglas, the Democratic candidate. He lost the senatorial election, but continued to prepare the way for the 1860 Republican convention and was rewarded with the presidential nomination on the third ballot. He polled 180 electoral votes, as against the 123 of his three opponents, but had only a plurality of the popular vote.

From the start, Lincoln made clear that, unlike Buchanan, he believed the national government had the power to crush the rebellion. Not an abolitionist, he held the slavery issue subordinate to that of preserving the Union but soon perceived that the war could not be brought to a successful conclusion without freeing the slaves. His administration was hampered by the incompetence of many Union generals, the inexperience of the troops and the harassing political tactics both of the Republican Radicals, who favored a hard policy toward the South, and the Democratic Copperheads, who desired a negotiated peace. The Gettysburg Address of November 19, 1863, marks the high point in the record of American eloquence. His patient search for a winning combination finally brought Generals Ulysses S. Grant and William T. Sherman to the top; and their series of victories in 1864 dispelled the mutterings from both Radicals and Peace Democrats which at one time seemed to threaten Lincoln's re-election. He received 212 electoral votes to 21 for George B. McClellan, the Democratic candidate. His inaugural address urged leniency toward the South: "With malice toward none, with charity for all . . . let us strive on to finish the work we are in; to bind up the nation's wounds . . ." This policy aroused growing opposition on the part of the Republican Radicals, but Lincoln was shot by John Wilkes Booth at Ford's Theater, Washington, on April 14, 1865, before the matter could be put to test. He died the following day.

Lincoln's marriage to Mary Todd in 1842 was often unhappy and turbulent, in part because of his wife's pronounced instability. By his remarkable literary artistry, his essential patience and devotion, his profound sense of the importance of government by, for and of the people, by the manner of his life and of his death, Lincoln has won a unique place in the hearts of Americans. The standard biographies are by Sandburg, Herndon, Nicolay and Hay.

ANDREW JOHNSON

was born at Raleigh, North Carolina, on December 29, 1808. Self-educated, he became a tailor in Greeneville, Tennessee, but soon went into politics where he rose steadily. From 1843 to 1853 he served in the House of Representatives, 1853–57 as governor of Tennessee and in 1857 was elected Senator. Politically he was a Jacksonian Democrat, and his specialty was the fight for a more equitable land policy. Alone among the Southern Senators, he stood by the Union during the Civil War. In 1862 he became war governor of Tennessee and carried out a thankless and difficult job with great courage. Johnson became Lincoln's running mate in 1864 as a result of an attempt to give the ticket a nonpartisan and nonsectional character. Succeeding to the presidency on Lincoln's death, Johnson sought to carry out his policy but without his political skill. The result was a hopeless conflict with the Radical Republicans who dominated Congress, passed measures over Johnson's vetoes and attempted to limit the power of the executive concerning appointments and removals. The conflict culminated with Johnson's impeachment for attempting to remove his disloyal Secretary of War in defiance of the Tenure of Office Act which required senatorial concurrence for such dismissals. The opposition failed by one vote to get the two-thirds necessary for conviction.

After his presidency, Johnson maintained an interest in politics and in 1875 was elected to the Senate. He died near Carter Station, Tennessee, on July 31, 1875. He married Eliza McCardle in 1827. An honest, courageous and intelligent man, Johnson lacked the tact, patience and self-control to be an effective President.

The standard biographies are by Winston, Stryker and Milton.

ULYSSES SIMPSON GRANT

was born (as Hiram Ulysses Grant) at Point Pleasant, Ohio, on April 27, 1822. He finished West Point in 1843 and served without particular distinction in the Mexican War. In 1848 he married Julia Dent. He resigned from the army in 1854, following warnings from his commanding officer about his drinking habits, and for the next six years held a wide variety of jobs in the Middle West. With the outbreak of the Civil War, he sought a command and soon, to his surprise, was made a brigadier general. His continuing successes in the western theaters, culminating in the capture of Vicksburg in 1863, brought him national fame and soon the command of all the Union armies. His dogged, implacable policy of concentrating on dividing and destroying the Confederate armies brought the war to an end in 1865. In 1866 he was made full general.

Grant's relations with Johnson grew steadily worse; and in 1868, as the Republican candidate for President, Grant was elected with 214 electoral votes to 80 for the Democrat Horatio Seymour. From the start Grant showed his unfitness for the office. His cabinet was weak, his do-

nestic policy was confused, many of his ntimate associates were corrupt. The no-able achievement in foreign affairs was ne settlement of controversies with Great ritain in the Treaty of London (1871), egotiated by his able Secretary of State, lamilton Fish.

Nominated for a second term, he de-eated Horace Greeley, the Democratic and iberal Republican candidate, 286 votes to 3. The Panic of 1873 created difficulties for is second term.

After retiring from office, Grant toured urope for two years and returned in time o accede to a third-term boom, but was eaten in the convention of 1880. Illness nd bad business judgment darkened his ast years, but he worked steadily at the *ersonal Memoirs* which were to be so suc-essful when published after his death t Mount McGregor, near Saratoga, New ork, on July 23, 1885. Inarticulate, taci-urn, loyal to his friends, he was an able eneral who should never have accepted ne presidency. The standard biographies re by Hesseltine and Woodward.

RUTHERFORD BIRCHARD HAYES

as born at Delaware, Ohio, on October 4, 822. A graduate of Kenyon College and ne Harvard Law School, he practiced law n Sandusky and then in Cincinnati, Ohio. n 1852 he married Lucy Webb. A Whig, he oined the Republican party in 1855. Dur-ng the Civil War he rose to the rank of najor general. He served in Congress from 865 to 1867 and then confirmed a repu-ation for honesty and efficiency in two erms as governor of Ohio. His re-election s governor in 1875 made him the logi-al candidate for those Republicans who ished to stop James G. Blaine in 1876, and e was successfully nominated.

The result of the election was for some me in doubt and hinged upon disputed eturns from South Carolina, Louisiana, lorida and Oregon. Samuel J. Tilden, the emocratic candidate, had the larger pop-lar vote but was adjudged by the strictly artisan decisions of the Electoral Com-nission to have one less electoral vote, 185 o 184. The national acceptance of this re-ult was due in part to the general un-erstanding that Hayes would pursue a onciliatory policy toward the South. He ithdrew the troops from the South, took conservative position on financial and abor issues and urged civil service reform.

Hayes served only one term by his own ish and spent the rest of his life in vari-us humanitarian endeavors. He died in remont, Ohio, on January 17, 1893. A ard-working, conscientious, sensible man, ayes represented the best type of Re-ublican of his day. The standard biogra-hies are by Eckenrode and Williams.

JAMES ABRAM GARFIELD,

the last President to be born in a log cabin, was born at Cuyahoga County, Ohio, on November 19, 1831. A Williams graduate, he taught school for a time and entered Republican politics in Ohio. In 1858 he married Lucretia Rudolph. During the Civil War he had a promising career, rising to the rank of major general of volunteers; but in 1863 he was elected to the House of Representatives where he served until 1880. His oratorical and parliamentary abilities soon made him the leading Republican in the House, though his record was marred by his unorthodox acceptance of a fee in the DeGolyer paving contract case and by suspicions of his complicity in the Crédit Mobilier scandal.

In 1880 Garfield was elected to the Senate, but instead became the presidential candidate on the 36th ballot as a result of a deadlock in the Republican convention. He gained 214 electoral votes to 155 for General Winfield Scott Hancock, the Democratic candidate. Garfield's administration was barely under way when he was shot by Charles J. Guiteau, a disappointed office seeker, in July. He died in Elberon, New Jersey, on September 19, 1881. An attractive and eloquent man, he was much beloved in his day.

The standard biographies are by Smith and Caldwell.

CHESTER ALAN ARTHUR

was born at Fairfield, Vermont, on October 5, 1830. A graduate of Union College, he became a successful New York lawyer. In 1859 he married Ellen Herndon. During the Civil War he held administrative jobs in the Republican state administration and in 1871 was appointed collector of the Port of New York by Grant. This post gave him control over considerable patronage; and, though not personally corrupt, Arthur managed his power in the interests of the New York machine so openly that President Hayes in 1877 called for an investigation, and in 1878 Arthur was suspended from his responsibilities.

In 1880 Arthur was nominated for Vice President in the hope of conciliating the followers of Grant and the powerful New York machine. As President on Garfield's assassination, Arthur, stepping out of his familiar role as spoilsman, backed civil service reform, reorganized the cabinet and prosecuted political associates accused of post office graft. Losing machine support and failing to gain the reformers, he was not renominated. He died in New York City on November 18, 1886. A tall, handsome, dignified man with real administrative abilities, he was a better President than his previous record promised. The standard biography is by Howe.

STEPHEN GROVER CLEVELAND

was born at Caldwell, New Jersey, on March 18, 1837. He was admitted to the bar in Buffalo, New York, in 1859 and lived there as a lawyer, with occasional incursions into Democratic politics, for more than twenty years. He did not participate in the Civil War. As mayor of Buffalo in 1881, he carried through a reform program so ably that the Democrats ran him successfully for governor in 1882. In 1884 he won the Democratic nomination for President. The campaign contrasted Cleveland's spotless public career with the uncertain record of James G. Blaine, the Republican candidate, and Cleveland received enough Mugwump (independent Republican) support to win by 219 to 182 electoral votes.

As President, Cleveland pushed civil service reform, opposed the pension grab and attacked the high tariff rates. While in the White House he married Frances Folsom (1886). Renominated in 1888, Cleveland was defeated by Benjamin Harrison, polling more popular but fewer electoral votes. In 1892 he was re-elected over Harrison, 277 to 145, with 22 votes for James B. Weaver, the Populist candidate. When the Panic of 1893 burst upon the country, Cleveland's attempts to solve it by sound-money measures alienated the free-silver wing of the party, while his tariff policy alienated the protectionists. In 1894 he sent troops to break the Pullman strike. In foreign affairs his firmness caused Great Britain to back down in the Venezuela border dispute.

In his last years Cleveland was an active and much respected public figure. He died in Princeton, New Jersey, on June 24, 1908. An honest, stubborn, high-principled man, Cleveland was an old-fashioned liberal in the nineteenth-century sense who was baffled by the new problems of industrial society. The standard biographies are by Nevins and McElroy.

BENJAMIN HARRISON

was born in North Bend, Ohio, on August 20, 1833, the grandson of William Henry Harrison. A graduate of Miami University, he took up the law in Indiana and became active in Republican politics. In 1853 he married Caroline Lavinia Scott. During the Civil War he rose to the rank of brigadier general. A sound-money Republican, he was elected senator from Indiana in 1880 and in 1888 received the Republican nomination for President on the 8th ballot. Though behind on the popular vote, he won over Grover Cleveland in the electoral college by 233 to 168.

As President, Benjamin Harrison failed to please either the bosses or the reform element in the party. In foreign affairs he backed Secretary of State Blaine whose policy foreshadowed later American imperialism. In 1892 Harrison was renominated, but Cleveland beat him in the election. His wife died in the White House in 1892, and Harrison married her niece, Mary Scott (Lord) Dimmick, in 1896. After his presidency, he resumed law practice. He died in Indianapolis, Indiana, on March 13, 1901. Harrison was an honest man of very medium abilities.

WILLIAM McKINLEY

was born in Niles, Ohio, on January 29, 1843. A graduate of Allegheny College, he rose from the ranks to become a major in the Civil War. Subsequently he opened a law office in Canton, Ohio, and in 1871 married Ida Saxton. Elected to Congress in 1876, he served there steadily till 1891 except for 1883–85. His faithful advocacy of business interests culminated in the passage of the highly protective McKinley Tariff of 1890. With the support of Mark Hanna, a shrewd Cleveland businessman interested in safeguarding tariff protection, McKinley became governor of Ohio in 1892 and Republican presidential candidate in 1896. The business community, alarmed by the progressivism of William Jennings Bryan, the Democratic candidate, spent considerable money to assure McKinley's victory which was by the margin of 271 to 176 in the electoral college.

The chief event of McKinley's administration was the war with Spain which resulted in our acquisition of the Philippines and other islands. With imperialism as an issue, McKinley defeated Bryan again in the election of 1900 by 292 to 155. On September 6, 1901, he was shot at Buffalo by Leon F. Czolgosz, an anarchist, and he died there on September 14.

The standard biography is by Olcott.

THEODORE ROOSEVELT

was born in New York City on October 27, 1858. A Harvard graduate, he was early interested in ranching, in politics and in writing picturesque historical narratives. He was a Republican member of the New York Assembly in 1882–84, an unsuccessful candidate for mayor of New York in 1886, a U. S. Civil Service Commissioner under Harrison, Police Commissioner of New York City in 1895 and Assistant Secretary of the Navy under McKinley in 1897. After exuding a belligerence which helped bring on the war with Spain, he resigned in 1898 to help organize a volunteer regiment named the Rough Riders and take a more direct part in the war. Always publicity shrewd, he won the New York gubernatorial nomination in 1898 in spite of pronounced lack of enthusiasm on the part of the bosses.

After two years of T.R. in Albany, the New York bosses succeeded in getting him the vice-presidential nomination in 1900

Roosevelt accepted it with reluctance, feeling that his career had been ruined. As President on McKinley's assassination, he perceived the new popular mood of progressivism and initiated a policy of trust busting, designed to control giant corporations. He also strengthened government powers over interstate commerce and launched a conservation program to save natural resources. In foreign affairs he pursued a truculent policy, permitting the instigation of a revolt in Panamá to dispose of Colombian objections to the Panama Canal and helping to maintain the balance of power in the East by bringing the Russo-Japanese war to an end. In 1904 he decisively defeated Alton B. Parker, his conservative Democratic opponent, by an electoral margin of 336 to 140.

Following his second term he went big-game hunting in Africa and toured Europe. On his return to the United States, his increasing coldness toward Taft led him to overlook his earlier disclaimer of third-term ambitions and to re-enter politics. Defeated by the machine in the Republican convention of 1912, he organized the Progressive party and polled more votes than Taft, though the split brought about the election of Wilson. From 1915 on, Roosevelt strongly favored intervention in the European war. He became deeply embittered at Wilson's refusal to allow him to raise a volunteer division. He died in Oyster Bay, New York, on January 6, 1919. He was married twice: in 1880 to Alice Hathaway Lee, who died in 1884; and in 1886 to Edith Kermit Carow.

The athletic advocate of the strenuous life, with his high voice, prominent teeth and thick glasses, Roosevelt captured the imagination of the American people. He was one of the great personalities of American history. The standard biography is by Pringle.

WILLIAM HOWARD TAFT

was born in Cincinnati, Ohio, on September 15, 1857. A Yale graduate, he entered Ohio Republican politics in the eighteen eighties. In 1886 he married Helen Herron. From 1887 to 1890, he served on the Ohio superior court; 1890–92, as solicitor general of the United States; 1892–1900, on the federal circuit court. In 1900 McKinley appointed him president of the Philippine Commission and in 1901 governor general. Taft had great success in pacifying the Filipinos, solving the problem of the church lands, improving economic conditions and establishing limited self-government. His period as Secretary of War 1904–08 further demonstrated his capacity as administrator and conciliator; and he was Roosevelt's hand-picked successor in 1908. In the election he polled 321 electoral votes to 162 for William Jennings Bryan.

As President, though he carried on many of Roosevelt's policies, Taft got into increasing trouble with the progressive wing of the party and displayed mounting irritability and indecision. After his defeat in 1912, he became professor of constitutional law at Yale. In 1921 he was appointed Chief Justice of the United States. He died in Washington on March 8, 1930. Enormously large, deliberate and good-humored, Taft excelled as an administrator and judge, not as a political leader.

The standard biography is by Pringle.

THOMAS WOODROW WILSON

was born in Staunton, Virginia, on December 28, 1856. A Princeton graduate, he turned from law practice to post-graduate work in political science at Johns Hopkins University, receiving his Ph.D. in 1886. He taught at Bryn Mawr, Wesleyan and Princeton, and in 1902 was made president of Princeton. After an unsuccessful attempt to democratize the social life of Princeton, he welcomed an invitation in 1910 to be the Democratic gubernatorial candidate in New Jersey. His success in fighting the machine and putting through a reform program attracted national attention.

In 1912, after a protracted contest at Baltimore, Wilson won the Democratic nomination on the 46th ballot. In the election he received 435 electoral votes to 88 for Roosevelt and 8 for Taft. During his first term Wilson proceeded under the standard of the New Freedom to enact a program of domestic reform, including the Federal Reserve Act, the Clayton Anti-trust Act, the establishment of the Federal Trade Commission and other measures designed to restore competition in the face of the great monopolies. In foreign affairs, while privately sympathetic with the Allies, he strove to maintain strict neutrality in the European war and warned both sides against encroachments on American interests.

Re-elected in 1916 as a peace candidate, he tried to mediate between the warring nations; but, when the Germans resumed unrestricted submarine warfare in 1917, Wilson brought the United States into what he now believed was a war to make the world safe for democracy. He supplied the classic formulations of Allied war aims; and the armistice of November, 1918, was negotiated on the basis of Wilson's Fourteen Points. In 1919 he strove at Versailles to lay the foundations for enduring peace. He accepted the imperfections of the Versailles Treaty in the expectation that they could be remedied by action within the

League of Nations. He probably could have secured ratification of the treaty if he had adopted a more conciliatory attitude toward the mild reservationists; but his insistence on all or nothing eventually caused the diehard isolationists and diehard Wilsonites to unite in rejecting a compromise.

In September, 1919, Wilson suffered a paralytic stroke which limited his future activity. After the presidency he lived on in retirement in Washington, dying February 3, 1924. He was married twice—in 1885 to Ellen Louise Axson, who died in 1914, and in 1915 to Edith Bolling Galt. A man of high principle, inspiring eloquence and great intellectual ability, Wilson was the first leader to fire the imagination of the masses of the world with the vision of world peace. The standard biography is by Baker.

WARREN GAMALIEL HARDING

was born in Morrow County, Ohio, on November 2, 1865. After attending Ohio Central College, Harding became interested in journalism and in 1884 bought the *Marion* (Ohio) *Star*. In 1891 he married a wealthy widow, Florence Kling De Wolfe. As his paper prospered, he entered Republican politics, serving as state senator (1899–1903), and as lieutenant governor (1904–06). In 1910 he was defeated for governor but in 1914 was elected to the Senate. His reputation as orator made him keynoter in the 1916 convention.

When the 1920 Republican convention was deadlocked between Leonard Wood and Frank O. Lowden, Harding was made the dark-horse nominee on his solemn affirmation that there was no reason in his past that he should not be. Straddling the League question, Harding was elected easily, with 404 electoral votes to 127 for James M. Cox, his Democratic opponent. His cabinet contained some able men, but also some manifestly unfit for public office. Harding's own intimates were mediocre when they were not corrupt. The impending disclosure of scandals in the Interior and Justice departments and in the Veterans' Bureau, as well as political setbacks, profoundly worried him. On his return from Alaska in 1923, he died suddenly at San Francisco on August 2. A handsome and genial man, undiscriminating in his associates, lacking in political ideas or fortitude, Harding was totally unfitted for the presidency.

JOHN CALVIN COOLIDGE

was born in Plymouth, Vermont, on July 4, 1872. An Amherst graduate, he went into law practice at Northampton, Massachusetts, in 1897. He married Grace Anna Goodhue in 1905. He entered Republican state politics, becoming successively mayor of Northampton, state senator, lieutenant governor and, in 1919, governor. His conduct in regard to the Boston police strike in 1919 won him a somewhat undeserved reputation for decisive action and brought him the Republican vice-presidential nomination in 1920. After Harding's death Coolidge handled the Washington scandals with care and finally managed to save the Republican party from public blame for the widespread corruption.

In 1924 Coolidge won re-election without difficulty, getting 382 electoral votes to 136 for the Democrat, John W. Davis, and 13 for Robert M. La Follette running on the Progressive ticket. His second term, like his first, was characterized by a general satisfaction with the existing economic order. He stated that he did not choose to run in 1928.

After his presidency, Coolidge lived quietly in Northampton, writing an unilluminating *Autobiography* and conducting a syndicated column. He died in Northampton, Massachusetts, on January 5, 1933. His dry, Yankee humor, his frugality and glumness made him a paradoxically popular President in the boom period. The standard biographies are by White and Fuess.

HERBERT CLARK HOOVER

was born at West Branch, Iowa, an August 10, 1874. A Stanford graduate, he worked from 1895 to 1913 as a mining engineer and consultant in North America, Europe, Asia, Africa and Australia. In 1899 he married Lou Henry. During the First World War he served with distinction as chairman of the American Relief Committee in London, as chairman of the Commission for Relief in Belgium and as United States Food Administrator. His political affiliations were still sufficiently indeterminate for him to be mentioned as a possibility for both Republican and Democratic nominations in 1920; but after the election he served both Harding and Coolidge as Secretary of Commerce.

In the election of 1928 Hoover received 444 electoral votes to 87 for Alfred E. Smith, the Democratic candidate. He soon faced the worst depression in the nation's history; but his attacks upon it were hampered by his devotion to the theory that the forces which brought the crisis would soon bring the revival, and then by his belief that in too many areas the federal government had no power to act. In a succession of vetoes he struck down measures proposing a national employment system or national relief; he reduced income tax rates; and only at the end of his term did he yield to popular pressure and set up agencies such as the Reconstruction Finance Corporation to make emergency loans to assist business.

After his 1932 defeat, Hoover returned to private business. In 1946, President Truman charged him with various world food missions; and from 1947–49, he was head of the Commission on Organization of the Executive Branch of the Government. From 1953 to 1955 he was head of the Committee on Government Operations.

FRANKLIN DELANO ROOSEVELT

was born in Hyde Park, New York, on January 30, 1882. A Harvard graduate, he attended Columbia Law School and was admitted to the New York bar. In 1910 he was elected to the New York state senate as a Democrat. Re-elected in 1912, he was appointed Assistant Secretary of the Navy by Woodrow Wilson in 1913. In 1920 his radiant personality and his war services resulted in his nomination for Vice President as James M. Cox's running mate. After his defeat, he returned to law practice in New York. In August, 1921, Roosevelt was stricken with infantile paralysis while at Campobello, New Brunswick. After a long and gallant fight against the disease he recovered partial use of his legs. In 1924 and 1928 he led the fight at the Democratic national conventions for the nomination of Governor Alfred E. Smith of New York; and in 1928 Roosevelt was himself induced to run for governor of New York. He was elected and was re-elected in 1930.

In 1932 Roosevelt received the Democratic nomination for President and immediately launched a campaign which brought new spirit to a weary and discouraged nation. He won the election over Herbert Hoover by a margin of 472 to 59 in the electoral college. His first term was characterized by an unfolding of the New Deal program, with greater benefits for labor, the farmers and the unemployed, and the progressive estrangement of most of the business community.

At an early stage Roosevelt became aware of the menace to world peace involved in the existence of totalitarian fascism, and from 1937 on he tried to focus public attention on the trend of events in Europe and Asia. As a result he was widely denounced as a warmonger. He was re-elected in 1936 over Alfred M. Landon by the overwhelming electoral margin of 523 to 8; and the gathering international crisis caused him to decide to run again in 1940. He defeated Wendell L. Willkie, 449 to 82.

Roosevelt's program to bring maximum aid to Britain and, after June, 1941, to Russia was opposed, until the Japanese attack on Pearl Harbor restored national unity. During the war Roosevelt shelved the New Deal in the interests of conciliating the business community, both in order to get full production during the war and to prepare the way for a united acceptance of the peace settlements after the war. A series of conferences with Winston Churchill and Joseph Stalin laid down the bases for the postwar world. In 1944 he was elected to a fourth term, running against Governor Thomas E. Dewey of New York.

On April 12, 1945, Roosevelt died at Warm Springs, Georgia, shortly after his return from the Yalta Conference. His wife, Anna Eleanor Roosevelt, whom he married in 1905, is a woman of great ability who made significant contributions to her husband's policies. No President has been faced with so many staggering responsibilities, both at home and abroad.

HARRY S. TRUMAN

was born on a farm near Lamar, Missouri, on May 8, 1884. During the First World War he served in France with the 129th Field Artillery. After engaging briefly and unsuccessfully in the haberdashery business in Kansas City, Truman entered local politics. Under the sponsorship of Thomas Pendergast, Democratic boss of Missouri, he held a number of local offices, preserving his personal honesty in the midst of a notoriously corrupt political machine. In 1934 he was elected to the Senate and was re-elected in 1940. During his first term he was a loyal but quiet supporter of the New Deal; but in the course of his second term, an appointment as head of a Senate committee to investigate war production brought out his special qualities of honesty, common sense and hard work, and he won widespread respect.

Elected Vice President in 1944, Truman became President upon Roosevelt's death in 1945 and immediately had to face complex postwar problems, both domestic and foreign. His first attempts did not meet with marked success, and the Republicans won control of Congress in 1946. The next two years were distinguished by the Truman Doctrine, the Marshall Plan and civil-rights proposals; and his general record, highlighted by a vigorous Fair Deal campaign, brought about his unexpected and impressive re-election in 1948.

Truman's second term was primarily concerned with the Cold War with the Soviet Union, the implementing of the North Atlantic Pact, the United Nations police action in Korea, and the vast rearmament program with its accompanying problems of economic stabilization.

On Mar. 29, 1952, Truman announced that he would not run again for the Presidency. He campaigned actively for Adlai E. Stevenson. After Eisenhower's inauguration, Truman returned to his Independence, Missouri, home to write his memoirs. He further busied himself with the organization of the Harry S. Truman Library in Grandview, Missouri.

DWIGHT DAVID EISENHOWER was born in Denison, Texas, on October 14, 1890. His ancestors lived in Germany, and emigrated to America, settling in Pennsylvania, early in the 18th century. His father, David, had a general store in Hope, Kansas, which failed. After a brief time in Texas, the family moved to Abilene, Kansas, when young Dwight was about a year old.

After graduating from Abilene High School in 1909, Dwight Eisenhower did odd jobs for almost two years. He won an appointment to the Naval Academy at Annapolis, but it turned out that he was too old for admittance. Then he received an appointment in 1910 to West Point. He was graduated a 2nd lieutenant in 1915.

He did not see service in World War I, having been assigned to the 19th Infantry at Fort Sam Houston, Texas. There he met Mamie Geneva Doud, whom he married in Denver on July 1, 1916. Their first son died in infancy. Their second son is Major John Sheldon Doud Eisenhower.

A paper he wrote about 1930 attracted the attention of General Douglas MacArthur, then Chief of Staff, who asked that Eisenhower be assigned to his office. When MacArthur went to the Philippines as military adviser in 1935, Eisenhower accompanied him and remained with him until 1939.

General George C. Marshall brought him into the War Department General Staff and, in 1942, put him in command of the Allied invasion of North Africa. In 1944, Eisenhower was made Supreme Allied Commander of the invasion of Europe.

After the war, Eisenhower served as Army Chief of Staff from November 1945 until February 1948, when he was appointed president of Columbia University. His book *Crusade in Europe* sold more than 800,000 copies.

In December 1950, President Truman recalled Eisenhower to active duty to command the North Atlantic Treaty Organization forces in Europe. He held this post until the end of May 1952.

In the Republican Convention of July 1952 in Chicago, Eisenhower won the Presidential nomination on the first ballot in a close race with Senator Robert A. Taft of Ohio. In November, he won the election, defeating Adlai E. Stevenson by an electoral vote of 442 to 89.

The first two and a half years of Eisenhower's administration were marked by progress in relaxing international tensions, from the Korean Armistice, to the international pool for peacetime uses of atomic energy, to the Geneva Conference. On the home front, his administration was accused of favoring the business community at the expense of the common man in such matters as the 1954 tax law, the tidelands oil law and the Dixon-Yates contract.

How to Number the Presidents

Is President Eisenhower the 33rd President? Or is he the 34th?

The difficulty started with Grover Cleveland. He became our 22nd President back in 1885. Then came Benjamin Harrison, who was obviously the 23rd President, serving from 1889–93. At this point, Cleveland returned to the White House for a second (but nonconsecutive) term.

Cleveland was still the same man who had been our 22nd President. But in his later term, it would look silly—some folks thought—to continue to call him our 22nd President. That would make the 22nd President follow the 23rd. Numbers should go in order—so ran the argument—and Cleveland should therefore be designated both as the 22nd President in his first term and as the 24th in his second term.

The people who argued the other way found an eloquent spokesman in John Kieran. He said: "Write down the names of all the Presidents, and you will only get 33. If you write Cleveland twice, you'll get 34—but in that case you've got to write Franklin D. Roosevelt's name four times. Until they prove to me that Grover Cleveland was two men, Eisenhower can't be the 34th President."

The *Congressional Directory*, which must be considered the official final authority, grappled with the problem of numbering the Presidents. Until recent years, it has followed John Kieran's theory: it listed Cleveland as the 22nd President, but not as the 24th. No number was given to his second term. On that reckoning, Harry S. Truman was inaugurated, according to the *Congressional Directory*, the 32nd President in 1949. Cautiously, the *Directory* printed: "NOTE: The figures indicate the number of persons who have served as President. . . ."

After the election of President Truman, and before the election of President Eisenhower, the *Congressional Directory* changed its official mind. In the current issue, Truman is the 33rd President, and Eisenhower is listed as the 34th. (Cleveland has two numbers—22nd and 24th.)

In conformity with officialdom, the *Information Please Almanac* is now recording the numbers of the Presidents in the same manner as the *Congressional Directory*. But we can't help thinking of John Kieran's remark: "put the busts of all the Presidents in a row and count them and you'll get 33 and only 33."

Presidents and Vice Presidents of the U. S.

Presidents & (parties[1])	Born	State of birth	Religion	Died	Term	Age at inaug.	Age at death
1. Washington (F)[3]	Feb. 22, 1732	Va.	Episcopalian	Dec. 14, 1799	1789–1797	57	67
2. J. Adams (F)	Oct. 30, 1735	Mass.	Unitarian	July 4, 1826	1797–1801	61	90
3. Jefferson (DR)	Apr. 13, 1743	Va.	Deist	July 4, 1826	1801–1809	57	83
4. Madison (DR)	Mar. 16, 1751	Va.	Episcopalian	June 28, 1836	1809–1817	57	85
5. Monroe (DR)	Apr. 28, 1758	Va.	Episcopalian	July 4, 1831	1817–1825	58	73
6. J. Q. Adams (DR)	July 11, 1767	Mass.	Unitarian	Feb. 23, 1848	1825–1829	57	80
7. Jackson (D)	Mar. 15, 1767	S. C.	Presbyterian	June 8, 1845	1829–1837	61	78
8. Van Buren (D)	Dec. 5, 1782	N. Y.	Reformed Dutch	July 24, 1862	1837–1841	54	79
9. W. H. Harrison (W)[3]	Feb. 9, 1773	Va.	Episcopalian	Apr. 4, 1841	1841–1841	68	68
10. Tyler (W)	Mar. 29, 1790	Va.	Episcopalian	Jan. 18, 1862	1841–1845	51	71
11. Polk (D)	Nov. 2, 1795	N. C.	Methodist	June 15, 1849	1845–1849	49	53
12. Taylor (W)[3]	Nov. 24, 1784	Va.	Episcopalian	July 9, 1850	1849–1850	64	65
13. Fillmore (W)	Jan. 7, 1800	N. Y.	Episcopalian	Mar. 8, 1874	1850–1853	50	74
14. Pierce (D)	Nov. 23, 1804	N. H.	Episcopalian	Oct. 8, 1869	1853–1857	48	64
15. Buchanan (D)	Apr. 23, 1791	Pa.	Presbyterian	June 1, 1868	1857–1861	65	77
16. Lincoln (R)[10]	Feb. 12, 1809	Ky.	Liberal	Apr. 15, 1865	1861–1865	52	56
17. Johnson (U)[17]	Dec. 29, 1808	N. C.	([18])	July 31, 1875	1865–1869	56	66
18. Grant (R)	Apr. 27, 1822	Ohio	Methodist	July 23, 1885	1869–1877	46	63
19. Hayes (R)	Oct. 4, 1822	Ohio	Methodist	Jan. 17, 1893	1877–1881	54	70
20. Garfield (R)[12]	Nov. 19, 1831	Ohio	Disciples of Christ	Sept. 19, 1881	1881–1881	49	49
21. Arthur (R)	Oct. 5, 1830	Vt.	Episcopalian	Nov. 18, 1886	1881–1885	50	56
22. Cleveland (D)	Mar. 18, 1837	N. J.	Presbyterian	June 24, 1908	1885–1889	47	71
23. B. Harrison (R)	Aug. 20, 1833	Ohio	Presbyterian	Mar. 13, 1901	1889–1893	55	67
24. Cleveland (D)					1893–1897		
25. McKinley (R)[14]	Jan. 29, 1843	Ohio	Methodist	Sept. 14, 1901	1897–1901	54	58
26. T. Roosevelt (R)	Oct. 27, 1858	N. Y.	Reformed Dutch	Jan. 6, 1919	1901–1909	42	60
27. Taft (R)	Sept. 15, 1857	Ohio	Unitarian	Mar. 8, 1930	1909–1913	51	72
28. Wilson (D)	Dec. 28, 1856	Va.	Presbyterian	Feb. 3, 1924	1913–1921	56	67
29. Harding (R)[3]	Nov. 2, 1865	Ohio	Baptist	Aug. 2, 1923	1921–1923	55	57
30. Coolidge (R)	July 4, 1872	Vt.	Congregationalist	Jan. 5, 1933	1923–1929	51	60
31. Hoover (R)	Aug. 10, 1874	Iowa	Quaker		1929–1933	54	
32. F. D. Roosevelt (D)[3]	Jan. 30, 1882	N. Y.	Episcopalian	Apr. 12, 1945	1933–1945	51	63
33. Truman (D)	May 8, 1884	Mo.	Baptist		1945–1953	60	
34. Eisenhower (R)	Oct. 14, 1890	Tex.	Presbyterian		1953–	62	

Vice Presidents[2]	State of birth
1. John Adams	Mass.
2. Thomas Jefferson[4]	Va.
3. Aaron Burr	N. J.
4. George Clinton	N. Y.
George Clinton[5]	
5. Elbridge Gerry[6]	Mass.
6. Daniel D. Tompkins	N. Y.
7. John C. Calhoun	N. C.
John C. Calhoun	
8. Martin Van Buren	N. Y.
9. Richard M. Johnson	Ky.
10. John Tyler	Va.
11. George M. Dallas	Pa.
12. Millard Fillmore	N. Y.
13. William R. King[9]	N. C.
14. John C. Breckinridge	Ky.
15. Hannibal Hamlin	Maine
16. Andrew Johnson[17]	N. C.
17. Schuyler Colfax	N. Y.
18. Henry Wilson[11]	N. H.
19. William A. Wheeler	N. Y.
20. Chester A. Arthur	Vt.
21. Thomas A. Hendricks[13]	Ohio
22. Levi P. Morton	Vt.
23. Adlai E. Stevenson	Ky.
24. Garret A. Hobart[14]	N. J.
25. Theodore Roosevelt	N. Y.
26. Charles W. Fairbanks	Ohio
27. James S. Sherman[15]	N. Y.
28. Thomas R. Marshall	Ind.
29. Calvin Coolidge	Vt.
30. Charles G. Dawes	Ohio
31. Charles Curtis	Kans.
32. John N. Garner	Tex.
33. Henry A. Wallace	Iowa
34. Harry S. Truman	Mo.
35. Alben W. Barkley	Ky.
36. Richard M. Nixon	Calif.

U. S. Military Actions Other Than Declared Wars

HAWAII (1893): U. S. Marines, ordered to land by U. S. Minister Stevens, aided the revolutionary Committee of Safety in overthrowing the native government. Stevens then proclaimed Hawaii a U. S. protectorate. Annexation, resisted by the Democratic regime in Washington, was not formally accomplished until 1898.

CHINA (1900): Boxers (a group of Chinese revolutionists) occupied Peking and laid siege to foreign legations. U. S. troops joined an international expedition which relieved the city.

PANAMÁ (1903): After Colombia had rejected a proposed agreement for relinquishing sovereignty over the Panama Canal Zone, revolution broke out, aided by promoters of the Panama Canal Co. Two U. S. warships were standing by to protect American privileges. The U. S. recognized the Republic of Panamá on Nov. 6.

DOMINICAN REPUBLIC (1904): When the Dominican Republic failed to meet debts owed to the U. S. and foreign creditors, Theodore Roosevelt declared the U. S. intention of exercising "international police power" in the Western Hemisphere whenever necessary. The U. S. accordingly administered customs and managed debt payments of the Dominican Republic from 1905–07.

NICARAGUA (1911): The possibility of foreign control over Nicaragua's canal route led to U. S. intervention and agreement. The U. S. landed Marines in Nicaragua (Aug. 14, 1912) to protect American interests there. A small detachment remained until 1933.

MEXICO (1914): Mexican Dictator Huerta, opposed by President Wilson, had the support of European governments. An incident involving unarmed U. S. sailors in Tampico led to the landing of U. S. forces on Mexican soil. Vera Cruz was bombarded by the Navy to prevent the landing of munitions from a German vessel. At the point of war, both powers agreed to mediation by Argentina, Brazil and Chile. Huerta abdicated, and Carranza succeeded to the presidency.

HAITI (1915): U. S. Marines imposed a military occupation. Haiti signed a treaty making it a virtual protectorate of the U. S. until troops were withdrawn in 1934.

MEXICO (1916): Raids by Pancho Villa cost American lives on both sides of the border. President Carranza consented to a punitive expedition lead by Gen. Pershing, but antagonism grew in Mexico. Wilson withdrew the U. S. force when war with Germany became imminent.

DOMINICAN REPUBLIC (1916): Renewed intervention in the Dominican Republic with internal administration by U. S. naval officers lasted until 1924.

Annual Salaries of Federal Officials

President of the U. S.	$100,000[1]	Secretaries of the Army, Navy, Air Force	18,000
Vice President of the U. S.	35,000[2]	Senators and Representatives	22,500
Cabinet members	22,500	Speaker of the House	35,000[2]
Undersecretaries of executive departments	17,500	Chief Justice of the Supreme Court	35,500
Deputy Secretary of Defense	20,000	Associate Justices of the Supreme Court	35,000

[1] Plus taxable $50,000 for expenses and a nontaxable sum (not to exceed $40,000 a year) for traveling and official entertainment expenses. [2] Plus nontaxable $10,000 for expenses. NOTE: All salaries shown above are taxable.

Footnotes for Table on Opposite Page

[1] F—Federalist; DR—Democratic-Republican; D—Democratic; W—Whig; R—Republican; U—Union. [2] Same party as President, except as indicated. [3] No party for first election. The party system in the U. S. made its appearance during Washington's first term. [4] Democratic-Republican. [5] Died in office Apr. 20, 1812. [6] Died in office Nov. 23, 1814. [7] Resigned Dec. 28, 1832, to become U. S. Senator. [8] Died in office [9] Died in office Apr. 18, 1853. [10] Died in office (shot Apr. 14 by John Wilkes Booth). [11] Died in office Nov. 22, 1875. [12] Died in office (shot July 2 by Charles J. Guiteau). [13] Died in office Nov. 25, 1885. [14] Died in office (shot Sept. 6 by Leon F. Czolgosz). [15] Died in office Nov. 21, 1899. [16] Died in office Oct. 30, 1912. [17] The Republican National Convention of 1864 adopted the name Union party. It renominated Lincoln for President; for Vice President it nominated Johnson a War Democrat. Although frequently listed as a Republican Vice President and President, Johnson undoubtedly considered himself strictly a member of the Union party. When that party broke apart after 1868, he returned to the Democratic party. [18] Johnson was not a professed church member; however, he admired the Baptist principles of church government.

Wives and Children of the Presidents of the United States

President	Wife's name	Year and place of wife's birth	Married	Wife Died	Children of President Sons	Children of President Daughters
Washington	Mrs. Martha Dandridge Custis	1732, Va.	1759	1802	..	..
John Adams	Abigail Smith	1744, Mass.	1764	1818	3	2
Jefferson	Mrs. Martha Wayles Skelton	1748, Va.	1772	1782	1	5
Madison	Mrs. Dorothy "Dolly" Payne Todd	1772, N. C.	1794	1849	..	..
Monroe	Eliza Kortright	1768, N. Y.	1786	1830	..	2
J. Q. Adams	Louisa Catherine Johnson	1775, England	1797	1852	3	1
Jackson	Mrs. Rachel Donelson Robards	1767, Va.	1791	1828	..	..
Van Buren	Hannah Hoes	1783, N. Y.	1807	1819	4	..
W. H. Harrison	Anna Symmes	1775, N. J.	1795	1864	6	4
Tyler	Letitia Christian	1790, Va.	1813	1842	3	4
	Julia Gardiner	1820, N. Y.	1844	1889	5	2
Polk	Sarah Childress	1803, Tenn.	1824	1891	..	..
Taylor	Margaret Smith	1788, Md.	1810	1852	1	5
Fillmore	Abigail Powers	1798, N. Y.	1826	1853	1	1
	Mrs. Caroline Carmichael McIntosh	1813, N. J.	1858	1881	..	..
Pierce	Jane Means Appleton	1806, N. H.	1834	1863	3	..
Buchanan	(Unmarried)	....	....	....	..	..
Lincoln	Mary Todd	1818, Ky.	1842	1882	4	..
Johnson	Eliza McCardle	1810, Tenn.	1827	1876	3	2
Grant	Julia Dent	1826, Mo.	1848	1902	3	1
Hayes	Lucy Ware Webb	1831, Ohio	1852	1889	7	1
Garfield	Lucretia Rudolph	1832, Ohio	1858	1918	5	2
Arthur	Ellen Lewis Herndon	1837, Va.	1859	1880	2	1
Cleveland	Frances Folsom	1864, N. Y.	1886	1947	2	3
B. Harrison	Caroline Lavinia Scott	1832, Ohio	1853	1892	1	1
	Mrs. Mary Scott Lord Dimmick	1858, Pa.	1896	1948	..	1
McKinley	Ida Saxton	1847, Ohio	1871	1907	..	2
T. Roosevelt	Alice Hathaway Lee	1861, Mass.	1880	1884	..	1
	Edith Kermit Carow	1861, Conn.	1886	1948	4	1
Taft	Helen Herron	1861, Ohio	1886	1943	2	1
Wilson	Ellen Louise Axson	1860, Ga.	1885	1914	..	3
	Mrs. Edith Bolling Galt	1872, Va.	1915	....	..	..
Harding	Mrs. Florence Kling DeWolfe	1860, Ohio	1891	1924	..	..
Coolidge	Grace Anna Goodhue	1879, Vt.	1905	....	2	..
Hoover	Lou Henry	1875, Iowa	1899	1944	2	..
F. D. Roosevelt	Anna Eleanor Roosevelt	1884, N. Y.	1905	....	5	1
Truman	Bess Wallace	1885, Mo.	1919	....	..	1
Eisenhower	Mamie Geneva Doud	1896, Iowa	1916	....	2	..

National Committee Chairmen Since 1916

Source: Republican and Democratic National Committees.

Chairman and (state)	Term
Republican	
William R. Willcox (N. Y.)	1916–18
Will Hays (Ind.)	1918–21
John T. Adams (Iowa)	1921–24
William M. Butler (Mass.)	1924–28
Hubert Work (Colo.)	1928–29
Claudius H. Huston (Tenn.)	1929–30
Simeon D. Fess (Ohio)	1930–32
Everett Sanders (Ind.)	1932–34
Henry P. Fletcher (Pa.)	1934–36
John Hamilton (Kans.)	1936–40
Joseph W. Martin, Jr. (Mass.)	1940–42
Harrison E. Spangler (Iowa)	1942–44
Herbert Brownell, Jr. (N. Y.)	1944–46
Carroll Reece (Tenn.)	1946–48
Hugh D. Scott, Jr. (Pa.)	1948–49
Guy G. Gabrielson (N. J.)	1949–52
Arthur E. Summerfield (Mich.)	1952–53
C. Wesley Roberts (Kans.)	1953–53
Republican (Contd.)	
Leonard W. Hall (N. Y.)	1953–
Democratic	
Vance McCormick (Pa.)	1916–19
Homer Cummings (Conn.)	1919–20
George White (Ohio)	1920–21
Cordell Hull (Tenn.)	1921–24
Clem Shaver (W. Va.)	1924–28
John J. Raskob (N. Y.)	1928–32
James A. Farley (N. Y.)	1932–40
Edward J. Flynn (N. Y.)	1940–43
Frank C. Walker (Mont.)	1943–44
Robert E. Hannegan (Mo.)	1944–47
J. Howard McGrath (R. I.)	1947–49
William M. Boyle, Jr. (Mo.)	1949–51
Frank E. McKinney (Ind.)	1951–52
Stephen A. Mitchell (Ill.)	1952–54
Paul M. Butler (Ind.)	1955–

Republican National Committee: 1625 I St., Washington 6, D. C.
Democratic National Committee: 1001 Connecticut Ave., Washington 6, D. C.

CONGRESS OF THE UNITED STATES

PARTY STRENGTH IN 80TH TO 84TH CONGRESSES

	The Senate*					The House†				
	80th 1947	81st 1949	82nd 1951	83rd 1953	84th 1955	80th 1947	81st 1949	82nd 1951	83rd 1953	84th 1955
Democratic	45	54	49	47	48	188	263	235	213	232
Republican	51	42	47	48	47	246	171	199	221	203
Other	0	0	0	1	1	1	1	1	1	0

* 49 necessary for majority. † 218 necessary for majority. NOTE: The year shown with each Congress is the one in which the 1st session was held. Party breakdown is according to the election held the preceding November.

THE EIGHTY-FOURTH CONGRESS

THE SENATE

The expiration date of each Senator's term is Jan. 3 of the year shown in parentheses. An asterisk (*) indicates that the Senator was re-elected in the 1954 elections to serve a full 6-year term ending in 1961.

ALABAMA
Lister Hill, D (1957)
*John J. Sparkman, D (1961)

ARIZONA
Carl Hayden, D (1957)
Barry M. Goldwater, R (1959)

ARKANSAS
*John L. McClellan, D (1961)
J. W. Fulbright, D (1957)

CALIFORNIA
William F. Knowland, R (1959)
Thomas H. Kuchel, R (1957)

COLORADO
Eugene D. Millikin, R (1957)
Gordon Allott, R (1961)

CONNECTICUT
Prescott Bush, R (1957)
William A. Purtell, R (1959)

DELAWARE
John J. Williams, R (1959)
*J. Allen Frear, Jr., D (1961)

FLORIDA
Spessard L. Holland, D (1959)
George A. Smathers, D (1957)

GEORGIA
Walter F. George, D (1957)
*Richard B. Russell, D (1961)

IDAHO
*Henry C. Dworshak, R (1961)
Herman Welker, R (1957)

ILLINOIS
*Paul H. Douglas, D (1961)
Everett M. Dirksen, R (1957)

INDIANA
Homer E. Capehart, R (1957)
William E. Jenner, R (1959)

IOWA
B. B. Hickenlooper, R (1957)
Thomas E. Martin, R (1961)

KANSAS
*A. F. Schoeppel, R (1961)
Frank Carlson, R (1957)

KENTUCKY
Earle C. Clements, D (1957)
Alben W. Barkley, D (1961)

LOUISIANA
*A. J. Ellender, Sr., D (1961)
Russell B. Long, D (1957)

MAINE
*Margaret C. Smith, R (1961)
Frederick G. Payne, R (1959)

MARYLAND
John M. Butler, R (1957)
J. Glenn Beall, R (1959)

MASSACHUSETTS
*Leverett Saltonstall, R (1961)
John F. Kennedy, D (1959)

MICHIGAN
Charles E. Potter, R (1959)
Patrick V. McNamara, D (1961)

MINNESOTA
Edward J. Thye, R (1959)
*H. H. Humphrey, D (1961)

MISSISSIPPI
*James O. Eastland, D (1961)
John C. Stennis, D (1959)

MISSOURI
T. C. Hennings, Jr., D (1957)
Stuart Symington, D (1959)

MONTANA
*James E. Murray, D (1961)
Mike Mansfield, D (1959)

NEBRASKA
Roman L. Hruska, R (1959)
Carl T. Curtis, R (1961)

NEVADA
George W. Malone, R (1959)
Alan Bible, D (1957)

NEW HAMPSHIRE
*Styles Bridges, R (1961)
Norris Cotton, R (1957)

NEW JERSEY
H. Alexander Smith, R (1959)
Clifford P. Case, R (1961)

NEW MEXICO
Dennis Chavez, D (1959)
*Clinton P. Anderson, D (1961)

NEW YORK
Irving M. Ives, R (1959)
Herbert H. Lehman, D (1957)

NORTH CAROLINA
Sam J. Ervin, Jr., D (1957)
W. Kerr Scott, D (1961)

NORTH DAKOTA
William Langer, R (1959)
Milton R. Young, R (1957)

OHIO
John W. Bricker, R (1959)
George H. Bender, R (1957)

OKLAHOMA
*Robert S. Kerr, D (1961)
A. S. Mike Monroney, D (1957)

OREGON
Wayne Morse, D (1957)
Richard L. Neuberger, D (1961)

PENNSYLVANIA
Edward Martin, R (1959)
James H. Duff, R (1957)

RHODE ISLAND
*Theodore F. Green, D (1961)
John O. Pastore, D (1959)

SOUTH CAROLINA
Olin D. Johnston, D (1957)
Strom Thurmond, D (1961)

SOUTH DAKOTA
*Karl E. Mundt, R (1961)
Francis Case, R (1957)

TENNESSEE
*Estes Kefauver, D (1961)
Albert Gore, D (1959)

TEXAS
*Lyndon B. Johnson, D (1961)
Price Daniel, D (1959)

UTAH
Arthur V. Watkins, R (1959)
Wallace F. Bennett, R (1957)

VERMONT
George D. Aiken, R (1957)
Ralph E. Flanders, R (1959)

VIRGINIA
Harry Flood Byrd, D (1959)
*A. Willis Robertson, D (1961)

WASHINGTON
Warren G. Magnuson, D (1957)
Henry M. Jackson, D (1959)

WEST VIRGINIA
Harley M. Kilgore, D (1959)
*Matthew M. Neely, D (1961)

WISCONSIN
Alexander Wiley, R (1957)
Joseph R. McCarthy, R (1959)

WYOMING
Frank A. Barrett, R (1959)
Joseph O'Mahoney, D (1961)

CONGRESSIONAL COMMITTEES

Committees of the Senate

Agriculture and Forestry (15)
Chairman: Allen J. Ellender, Sr. (La.)
Ranking Rep.: George D. Aiken (Vt.)

Appropriations (23)
Chairman: Carl Hayden (Ariz.)
Ranking Rep.: Styles Bridges (N. H.)

Armed Services (15)
Chairman: Richard B. Russell (Ga.)
Ranking Rep.: Styles Bridges (N. H.)

Banking and Currency (15)
Chairman: J. W. Fulbright (Ark.)
Ranking Rep.: Homer E. Capehart (Ind.)

District of Columbia (9)
Chairman: Matthew M. Neely, (W. Va.)
Ranking Rep.: J. Glenn Beall (Md.)

Finance (15)
Chairman: Harry Flood Byrd (Va.)
Ranking Rep.: Eugene D. Millikin (Colo.)

Foreign Relations (15)
Chairman: Walter F. George (Ga.)
Ranking Rep.: Alexander Wiley (Wis.)

Government Operations (13)
Chairman: John L. McClellan (Ark.)
Ranking Rep.: Joseph R. McCarthy (Wis.)

Interior and Insular Affairs (15)
Chairman: James E. Murray (Mont.)
Ranking Rep.: Eugene D. Millikin (Colo.)

Interstate and Foreign Commerce (15)
Chairman: Warren G. Magnuson (Wash.)
Ranking Rep.: John W. Bricker (Ohio)

Judiciary (15)
Chairman: Harley M. Kilgore (W. Va.)
Ranking Rep.: Alexander Wiley (Wis.)

Labor and Public Welfare (13)
Chairman: Lister Hill (Ala.)
Ranking Rep.: H. Alexander Smith (N. J.)

Post Office and Civil Service (13)
Chairman: Olin D. Johnson (S. C.)
Ranking Rep.: Frank Carlson (Kans.)

Public Works (13)
Chairman: Dennis Chavez (N. Mex.)
Ranking Rep.: Edward Martin (Pa.)

Rules and Administration (9)
Chairman: Theodore F. Green (R. I.)
Ranking Rep.: William E. Jenner (Ind.)

Committees of the House

Agriculture (33)
Chairman: Harold D. Cooley (N. C.)
Ranking Rep.: Clifford R. Hope (Kans.)

Appropriations (50)
Chairman: Clarence Cannon (Mo.)
Ranking Rep.: John Taber (N. Y.)

Armed Services (39)
Chairman: Carl Vinson (Ga.)
Ranking Rep.: Dewey Short (Mo.)

Banking and Currency (30)
Chairman: Brent Spence (Ky.)
Ranking Rep.: Jesse P. Wolcott (Mich.)

District of Columbia (25)
Chairman: John L. McMillan (S. C.)
Ranking Rep.: Sid Simpson (Ill.)

Education and Labor (28)
Chairman: Graham A. Barden (N. C.)
Ranking Rep.: S. K. McConnell, Jr. (Pa.)

Foreign Affairs (30)
Chairman: James P. Richards (S. C.)
Ranking Rep.: Robert B. Chiperfield (Ill.)

Government Operations (30)
Chairman: William L. Dawson (Ill.)
Ranking Rep.: Clare E. Hoffman (Mich.)

House Administration (25)
Chairman: Omar Burleson (Tex.)
Ranking Rep.: Karl M. LeCompte (Iowa)

Interior and Insular Affairs (30)
Chairman: Clair Engle (Calif.)
Ranking Rep.: A. L. Miller (Nebr.)

Interstate and Foreign Commerce (31)
Chairman: J. Percy Priest (Tenn.)
Ranking Rep.: Charles A. Wolverton (N. J.)

Judiciary (30)
Chairman: Emanuel Celler (N. Y.)
Ranking Rep.: Chauncey W. Reed (Ill.)

Merchant Marine and Fisheries (30)
Chairman: Herbert C. Bonner (N. C.)
Ranking Rep.: Thor C. Tollefson (Wash.)

Post Office and Civil Service (25)
Chairman: Tom Murray (Tenn.)
Ranking Rep.: Edward H. Rees (Kans.)

Public Works (29)
Chairman: Charles A. Buckley (N. Y.)
Ranking Rep.: George A. Dondero (Mich.)

Rules (12)
Chairman: Howard W. Smith (Va.)
Ranking Rep.: Leo E. Allen (Ill.)

Un-American Activities (9)
Chairman: Francis E. Walter (Pa.)
Ranking Rep.: Harold H. Velde (Ill.)

Veterans' Affairs (28)
Chairman: Olin E. Teague (Tex.)
Ranking Rep.: Edith Nourse Rogers (Mass.)

Ways and Means (25)
Chairman: Jere Cooper (Tenn.)
Ranking Rep.: Daniel A. Reed (N. Y.)

THE HOUSE OF REPRESENTATIVES

The apportionment based on the Seventeenth Census (1950) distributes the 435 seats in the House among the states according to the method of equal proportions. By this method the per cent difference between the average number of Representatives per million people in any 2 states is made as small as possible. Also, the per cent difference between the average districts, i.e., the average number of persons per Representative, in any 2 states is made as small as possible. By equalizing the representation of all pairs of states, the method gives as nearly equal representation as possible to all states in proportion to their population.

The numerals indicate the Congressional Districts of the states, and the designation At-L means At-Large. An asterisk (*) indicates that the Congressman was returned to office in the 1954 elections. The terms of all Representatives end Jan. 3, 1957.

ALABAMA

(9 Representatives)

1. *Frank W. Boykin, D
2. *George M. Grant, D
3. *George W. Andrews, D
4. *Kenneth A. Roberts, D
5. *Albert Rains, D
6. *Armistead I. Selden, Jr., D
7. *Carl Elliott, D
8. *Robert E. Jones, D
9. George Huddleston, Jr., D

ARIZONA

(2 Representatives)

1. *John J. Rhodes, R
2. Stewart L. Udall, D

ARKANSAS

(6 Representatives)

1. *E. C. Gathings, D
2. *Wilbur D. Mills, D
3. *James W. Trimble, D
4. *Oren Harris, D
5. *Brooks Hays, D
6. *W. F. Norrell, D

CALIFORNIA

(30 Representatives)

1. *Hubert B. Scudder, R
2. *Clair Engle, D
3. *John E. Moss, Jr., D
4. *William S. Mailliard, R
5. *John F. Shelley, D
6. John F. Baldwin, Jr., R
7. *John J. Allen, Jr., R
8. *George P. Miller, D
9. *J. Arthur Younger, R
10. *Charles S. Gubser, R
11. *Leroy Johnson, R
12. B. F. Sisk, D
13. Charles M. Teague, R
14. *Harlan Hagen, D
15. *Gordon L. McDonough, R
16. *Donald L. Jackson, R
17. *Cecil R. King, D
18. *Craig Hosmer, R
19. *Chet Holifield, D
20. *Carl Hinshaw, R
21. *Edgar W. Hiestand, R
22. *Joe Holt, R
23. *Clyde Doyle, D
24. *Glenard P. Lipscomb, R
25. *Patrick J. Hillings, R
26. James Roosevelt, D
27. *Harry R. Sheppard, D
28. *James B. Utt, R
29. *John Phillips, R
30. *Bob Wilson, R

COLORADO

(4 Representatives)

1. *Byron G. Rogers, D
2. *William S. Hill, R
3. *J. Edgar Chenoweth, R
4. *Wayne N. Aspinall, D

CONNECTICUT

(6 Representatives)

1. *Thomas J. Dodd, D
2. *Horace Seeley-Brown, Jr., R
3. *Albert W. Cretella, R
4. *Albert P. Morano, R
5. *James T. Patterson, R

At-L. *Antoni N. Sadlak, R

DELAWARE

(1 Representative)

At-L. Harris B. McDowell, Jr., D

FLORIDA

(8 Representatives)

1. William C. Cramer, R
2. *Charles E. Bennett, D
3. *Robert L. F. Sikes, D
4. Dante B. Fascell, D
5. *A. S. Herlong, Jr., D
6. *Paul G. Rogers, D
7. *James A. Haley, D
8. *D. R. (Billy) Matthews, D

GEORGIA

(10 Representatives)

1. *Prince H. Preston, D
2. *J. L. Pilcher, D
3. *E. L. Forrester, D
4. John J. Flynt, Jr., D
5. *James C. Davis, D
6. *Carl Vinson, D
7. *Henderson Lanham, D
8. Mrs. Iris F. Blitch, D
9. *Phil M. Landrum, D
10. *Paul Brown, D

IDAHO

(2 Representatives)

1. *Mrs. Gracie Pfost, D
2. *Hamer H. Budge, R

ILLINOIS

(25 Representatives)

1. *William L. Dawson, D
2. *Barratt O'Hara, D
3. James C. Murray, D
4. *William E. McVey, R
5. *John C. Kluczynski, D
6. *Thomas J. O'Brien, D
7. *James B. Bowler, D
8. *Thomas S. Gordon, D
9. *Sidney R. Yates, D
10. *Richard W. Hoffman, R
11. *Timothy P. Sheehan, R
12. Charles A. Boyle, D
13. *Marguerite S. Church, R
14. *Chauncey W. Reed, R
15. *Noah M. Mason, R
16. *Leo E. Allen, R
17. *Leslie C. Arends, R
18. *Harold H. Velde, R
19. *Robert B. Chiperfield, R
20. *Sid Simpson, R
21. *Peter F. Mack, Jr., D
22. *William L. Springer, R
23. *Charles W. Vursell, R
24. *Melvin Price, D
25. Kenneth J. Gray, D

INDIANA

(11 Representatives)

1. *Ray J. Madden, D
2. *Charles A. Halleck, R
3. *Shepard J. Crumpacker, R
4. *E. Ross Adair, R
5. *John V. Beamer, R
6. *Mrs. Cecil M. Harden, R
7. *William G. Bray, R
8. Winfield K. Denton, D
9. *Earl Wilson, R
10. *Ralph Harvey, R
11. *Charles B. Brownson, R

IOWA

(8 Representatives)

1. Fred Schwengel, R
2. *Henry O. Talle, R
3. *H. R. Gross, R
4. *Karl M. LeCompte, R
5. *Paul Cunningham, R
6. *James I. Dolliver, R
7. *Ben F. Jensen, R
8. *Charles B. Hoeven, R

KANSAS

(6 Representatives)

1. William H. Avery, R
2. *Errett P. Scrivner, R
3. *Myron V. George, R
4. *Edward H. Rees, R
5. *Clifford R. Hope, R
6. *Wint Smith, R

KENTUCKY

(8 Representatives)

1. *Noble J. Gregory, D
2. *William H. Natcher, D

3. *John M. Robsion, Jr., R
4. *Frank L. Chelf, D
5. *Brent Spence, D
6. *John C. Watts, D
7. *Carl D. Perkins, D
8. Eugene Siler, R

LOUISIANA

(8 Representatives)

1. *F. Edward Hébert, D
2. *Hale Boggs, D
3. *Edwin E. Willis, D
4. *Overton Brooks, D
5. *Otto E. Passman, D
6. *James H. Morrison, D
7. *T. Ashton Thompson, D
8. *George S. Long, D

MAINE

(3 Representatives)

1. *Robert Hale, R
2. *Charles P. Nelson, R
3. *Clifford G. McIntire, R

MARYLAND

(7 Representatives)

1. *Edward T. Miller, R
2. *James P. S. Devereux, R
3. *Edward A. Garmatz, D
4. *George H. Fallon, D
5. Richard E. Lankford, D
6. *DeWitt S. Hyde, R
7. *Samuel N. Friedel, D

MASSACHUSETTS

(14 Representatives)

1. *John W. Heselton, R
2. *Edward P. Boland, D
3. *Philip J. Philbin, D
4. *Harold D. Donohue, D
5. *Mrs. Edith Nourse Rogers, R
6. *William H. Bates, R
7. *Thomas J. Lane, D
8. Torbert H. Macdonald, D
9. *Donald W. Nicholson, R
10. *Laurence Curtis, R
11. *Thomas P. O'Neill, Jr., D
12. *John W. McCormack, D
13. *Richard B. Wigglesworth, R
14. *Joseph W. Martin, Jr., R

MICHIGAN

(18 Representatives)

1. *Thaddeus M. Machrowicz, D
2. *George Meader, R
3. August E. Johansen, R
4. *Clare E. Hoffman, R
5. *Gerald R. Ford, Jr., R
6. Don Hayworth, D
7. *Jesse P. Wolcott, R
8. *Alvin M. Bentley, R
9. *Ruth Thompson, R
10. *Elford A. Cederberg, R
11. *Victor A. Knox, R
12. *John B. Bennett, R
13. Charles C. Diggs, Jr., D
14. *Louis C. Rabaut, D
15. (Vacant)
16. *John Lesinski, D
17. Martha W. Griffiths, D
18. *George A. Dondero, R

MINNESOTA

(9 Representatives)

1. *August H. Andresen, R
2. *Joseph P. O'Hara, R
3. *Roy W. Wier, D
4. *Eugene J. McCarthy, D
5. *Walter H. Judd, R
6. *Fred Marshall, D
7. *H. Carl Andersen, R
8. *John A. Blatnik, D
9. Mrs. Coya Knutson, D

MISSISSIPPI

(6 Representatives)

1. *Thomas G. Abernethy, D
2. *Jamie L. Whitten, D
3. *Frank E. Smith, D
4. *John Bell Williams, D
5. *Arthur Winstead, D
6. *William M. Colmer, D

MISSOURI

(11 Representatives)

1. *Frank M. Karsten, D
2. *Thomas B. Curtis, R
3. *Leonor K. Sullivan, D
4. George H. Christopher, D
5. *Richard Bolling, D
6. W. R. Hull, Jr., D
7. *Dewey Short, R
8. *A. S. J. Carnahan, D
9. *Clarence Cannon, D
10. *Paul C. Jones, D
11. *Morgan M. Moulder, D

MONTANA

(2 Representatives)

1. *Lee Metcalf, D
2. Orvin B. Fjare, R

NEBRASKA

(4 Representatives)

1. Phil Weaver, R
2. Jackson B. Chase, R
3. *Robert D. Harrison, R
4. *A. L. Miller, R

NEVADA

(1 Representative)

At-L. *Clifton Young, R

NEW HAMPSHIRE

(2 Representatives)

1. *Chester E. Merrow, R
2. Perkins Bass, R

NEW JERSEY

(14 Representatives)

1. *Charles A. Wolverton, R
2. *T. Millet Hand, R
3. *James C. Auchincloss, R
4. Frank Thompson, Jr., D
5. *Peter Frelinghuysen, Jr., R
6. *Harrison A. Williams, Jr., D
7. *William B. Widnall, R
8. *Gordon Canfield, R
9. *Frank C. Osmers, Jr., R
10. *Peter W. Rodino, Jr., D
11. *Hugh J. Addonizio, D
12. *Robert W. Kean, R
13. *Alfred D. Sieminski, D
14. T. James Tumulty, D

NEW MEXICO

(2 Representatives)

At-L. *John J. Dempsey, D
At-L. *Antonio M. Fernandez, D

NEW YORK

(43 Representatives)

1. *Stuyvesant Wainwright, R
2. *Steven B. Derounian, R
3. *Frank J. Becker, R
4. *Henry J. Latham, R
5. *Albert H. Bosch, R
6. *Lester Holtzman, D
7. *James J. Delaney, D
8. Victor L. Anfuso, D
9. *Eugene J. Keogh, D
10. *Mrs. Edna F. Kelly, D
11. *Emanuel Celler, D
12. *Francis E. Dorn, R
13. *Abraham J. Multer, D
14. *John J. Rooney, D
15. *John H. Ray, R
16. *Adam C. Powell, Jr., D
17. *Frederic R. Coudert, Jr., R
18. *James G. Donovan, D
19. *Arthur G. Klein, D
20. Irwin D. Davidson, D
21. Herbert Zelenko, D
22. *Sidney A. Fine, D
23. *Isidore Dollinger, D
24. *Charles A. Buckley, D
25. *Paul A. Fino, R
26. *Ralph A. Gamble, R
27. *Ralph W. Gwinn, R
28. *Katharine St. George, R
29. *J. Ernest Wharton, R
30. *Leo W. O'Brien, D
31. *Dean P. Taylor, R
32. *Bernard W. (Pat) Kearney, R
33. *Clarence E. Kilburn, R
34. *William R. Williams, R
35. *R. Walter Riehlman, R
36. *John Taber, R
37. *W. Sterling Cole, R
38. *Kenneth B. Keating, R
39. *Harold C. Ostertag, R
40. *William E. Miller, R
41. *Edmund P. Radwan, R
42. *John R. Pillion, R
43. *Daniel A. Reed, R

NORTH CAROLINA

(12 Representatives)

1. *Herbert C. Bonner, D
2. *L. H. Fountain, D
3. *Graham A. Barden, D
4. *Harold D. Cooley, D
5. *Thurmond Chatham, D
6. *Carl T. Durham, D
7. *F. Ertel Carlyle, D
8. *Charles B. Deane, D
9. *Hugh Q. Alexander, D
10. *Charles Raper Jonas, R

11. *Woodrow W. Jones, D
12. *George A. Shuford, D

NORTH DAKOTA

(2 Representatives)

At-L. *Usher L. Burdick, R
At-L. *Otto Krueger, R

OHIO

(23 Representatives)

1. *Gordon H. Scherer, R
2. *William E. Hess, R
3. *Paul F. Schenk, R
4. *William M. McCulloch, R
5. *Cliff Clevenger, R
6. *James G. Polk, D
7. *Clarence J. Brown, R
8. *Jackson E. Betts, R
9. Thomas L. Ashley, D
10. *Thomas A. Jenkins, R
11. *Oliver P. Bolton, R
12. *John M. Vorys, R
13. A. D. Baumhart, Jr., R
14. *William H. Ayres, R
15. John E. Henderson, R
16. *Frank T. Bow, R
17. *J. Harry McGregor, R
18. *Wayne L. Hays, D
19. *Michael J. Kirwan, D
20. *Michael A. Feighan, D
21. Charles A. Vanik, D
22. *Mrs. Frances P. Bolton, R
23. William E. Minshall, R

OKLAHOMA

(6 Representatives)

1. *Page Belcher, R
2. *Ed Edmondson, D
3. *Carl Albert, D
4. *Tom Steed, D
5. *John Jarman, D
6. *Victor Wickersham, D

OREGON

(4 Representatives)

1. *Walter Norblad, R
2. *Sam Coon, R
3. Mrs. Edith Green, D
4. *Harris Ellsworth, R

PENNSYLVANIA

(30 Representatives)

1. *William A. Barrett, D
2. *William T. Granahan, D
3. *James A. Byrne, D
4. *Earl Chudoff, D
5. *William J. Green, Jr., D
6. *Hugh Scott, R
7. *Benjamin F. James, R
8. *Karl C. King, R
9. *Paul B. Dague, R
10. *Joseph L. Carrigg, R
11. Daniel J. Flood, D
12. *Ivor D. Fenton, R
13. *Samuel K. McConnell, Jr., R
14. *George M. Rhodes, D
15. *Francis E. Walter, D
16. *Walter M. Mumma, R
17. *Alvin R. Bush, R
18. *Richard M. Simpson, R
19. James M. Quigley, D
20. *James E. Van Zandt, R
21. *Augustine B. Kelley, D
22. *John P. Saylor, R
23. *Leon H. Gavin, R
24. *Carroll D. Kearns, R
25. Frank M. Clark, D
26. *Thomas E. Morgan, D
27. *James G. Fulton, R
28. *Herman P. Eberharter, D
29. *Robert J. Corbett, R
30. *Vera Buchanan, D

RHODE ISLAND

(2 Representatives)

1. *Aime J. Forand, D
2. *John E. Fogarty, D

SOUTH CAROLINA

(6 Representatives)

1. *L. Mendel Rivers, D
2. *John J. Riley, D
3. *W. J. Bryan Dorn, D
4. *Robert T. Ashmore, D
5. *James P. Richards, D
6. *John L. McMillan, D

SOUTH DAKOTA

(2 Representatives)

1. *Harold O. Lovre, R
2. *E. Y. Berry, R

TENNESSEE

(9 Representatives)

1. *B. Carroll Reece, R
2. *Howard H. Baker, R
3. *James B. Frazier, Jr., D
4. *Joe L. Evins, D
5. *J. Percy Priest, D
6. Roy Bass, D
7. *Tom Murray, D
8. *Jere Cooper, D
9. *Clifford Davis, D

TEXAS

(22 Representatives)

1. *Wright Patman, D
2. *Jack B. Brooks, D
3. *Brady Gentry, D
4. *Sam Rayburn, D
5. Bruce Alger, R
6. *Olin E. Teague, D
7. *John Dowdy, D
8. *Albert Thomas, D
9. *Clark W. Thompson, D
10. *Homer Thornberry, D
11. *W. R. Poage, D
12. James C. Wright, Jr., D
13. *Frank Ikard, D
14. John J. Bell, D
15. Joe M. Kilgore, D
16. J. T. Rutherford, D
17. *Omar Burleson, D
18. *Walter Rogers, D
19. *George H. Mahon, D
20. *Paul J. Kilday, D
21. *O. C. Fisher, D
At-L. *Martin Dies, D

UTAH

(2 Representatives)

1. Henry A. Dixon, R
2. *William A. Dawson, R

VERMONT

(1 Representative)

At.-L. *Winston L. Prouty, R

VIRGINIA

(10 Representatives)

1. *Edward J. Robeson, Jr., D
2. *Porter Hardy, Jr., D
3. *J. Vaughan Gary, D
4. *Watkins M. Abbitt, D
5. *William M. Tuck, D
6. *Richard H. Poff, R
7. *Burr P. Harrison, D
8. *Howard W. Smith, D
9. W. Pat Jennings, D
10. *Joel T. Broyhill, R

WASHINGTON

(7 Representatives)

1. *Thomas M. Pelly, R
2. *Jack Westland, R
3. *Russell V. Mack, R
4. *Hal Holmes, R
5. *Walt Horan, R
6. *Thor C. Tollefson, R
At-L. *Don Magnuson, D

WEST VIRGINIA

(6 Representatives)

1. *Robert H. Mollohan, D
2. *Harley O. Staggers, D
3. *Cleveland M. Bailey, D
4. M. G. Burnside, D
5. *Mrs. Elizabeth Kee, D
6. *Robert C. Byrd, D

WISCONSIN

(10 Representatives)

1. *Lawrence H. Smith, R
2. *Glenn R. Davis, R
3. *Gardner R. Withrow, R
4. *Clement J. Zablocki, D
5. Henry S. Reuss, D
6. *William K. Van Pelt, R
7. *Melvin R. Laird, R
8. *John W. Byrnes, R
9. *Lester R. Johnson, D
10. *Alvin E. O'Konski, R

WYOMING

(1 Representative)

At-L. E. Keith Thomson, R

ALASKA

(1 Delegate)

*E. L. (Bob) Bartlett, D[1]

HAWAII

(1 Delegate)

*Mrs. Elizabeth P. Farrington, R[1]

PUERTO RICO

(1 Resident Commissioner)

A. Fernós-Isern, Pop. Dem.[1]

[1] Does not have a vote.

Government Departments and Agencies

Source: U.S. Government Manual

(Unless otherwise indicated, addresses shown are in Washington, D.C.)

Executive Office of the President

THE WHITE HOUSE OFFICE

1600 Pennsylvania Ave., NW.

Activities: Serves President in performance of activities incident to his office.

BUREAU OF THE BUDGET

Executive Office Bldg.

Established: June 10, 1921.

Activities: Assists President in preparing budget and formulating fiscal program; supervises administration of budget; coordinates advice on proposed legislation; plans improvements in statistical services; keeps President informed of progress of activities by government agencies so that Congressional appropriations are spent most economically.

NATIONAL SECURITY COUNCIL (NSC)

Executive Office Bldg.

Members: 6. *Established:* July 26, 1947.

Activities: Assesses and appraises objectives, commitments and risks of U. S. in relation to our actual and potential military power in interests of national security. Central Intelligence Agency advises NSC on all intelligence matters. Operations Coordinating Board provides for integrated implementation of national security policies.

COUNCIL OF ECONOMIC ADVISERS (CEA)

Executive Office Bldg.

Members: 3. *Established:* Feb. 20, 1946.

Activities: Assists President in preparation of economic reports to Congress; studies economic trends; appraises government activities on nation's economy; recommends economic policies.

OFFICE OF DEFENSE MOBILIZATION (ODM)

Executive Office Bldg.

Established: 1953.

Activities: Advises President on co-ordination of military, industrial and civilian mobilization.

Executive Departments

DEPARTMENT OF STATE

21st St. & Virginia Ave., NW.

Established: 1781 as Department of Foreign Affairs; reconstituted, 1789, following adoption of Constitution; name changed to Department of State Sept. 15, 1789.

Activities: Determines government policy in relation to international problems; formulates measures for promoting friendship with other countries; develops policies and programs for U. S. participation in U. N. and other international organizations; conducts correspondence with our representatives abroad and with accredited foreign representatives here.

DEPARTMENT OF THE TREASURY

15th St. & Pennsylvania Ave., NW.

Established: Sept. 2, 1789.

Activities: Manages national finances; grants warrants for money drawn from Treasury pursuant to legal appropriations; handles collection of revenue; keeps and renders public accounts; prepares plans for improvement of revenue and for support of public credit; reports annually to Congress on condition of public finances; controls coinage and printing of money; administers Coast Guard, Bureau of Narcotics and Secret Service.

DEPARTMENT OF DEFENSE

The Pentagon

Established: July 26, 1947, as National Military Establishment; name changed to Department of Defense on Aug. 10, 1949. Subordinate to Secretary of Defense are Secretaries of Army, Navy, Air Force.

Activities: Provides for security of U. S. by establishing integrated policies and procedures; co-ordinates and directs the activities of 3 separately administered military departments (Army, Navy, Air Force).

DEPARTMENT OF JUSTICE

Constitution Ave. & 10th St., NW.

Established: Office of Attorney General was created Sept. 24, 1789. Although he was one of original Cabinet members, he was not executive department head until June 22, 1870, when Department of Justice was established.

Activities: Provides means for enforcing Federal laws; investigates and detects violations; represents U. S. in legal matters generally and gives advice and opinions when requested by President or heads of executive departments; directs FBI, Bureau of Prisons, Immigration and Naturalization Service.

POST OFFICE DEPARTMENT

12th St. & Pennsylvania Ave., NW.

Established: Office of Postmaster General and temporary post office system created Sept. 22, 1789. Act of Feb. 20, 1792, made detailed provisions for Post Office Department. Postmaster General became Cabinet member in 1829. Department received executive status June 8, 1872.

Activities: Maintains Postal Service of U. S. and executes all laws relative to it; negotiates, subject to approval of President, postal treaties with foreign governments.

DEPARTMENT OF THE INTERIOR

C St. between 18th & 19th Sts., NW.

Established: Mar. 3, 1849.

Activities: Develops and conserves natural resources of U. S. and territories; supervises public business relating to such offices as Bureau of Land Management, Bureau of Reclamation, Geological Survey, Bureau of Indian Affairs, National Park Service, Bureau of Mines, Fish and Wildlife Service, Office of Territories, etc.

DEPARTMENT OF AGRICULTURE

14th St. & Independence Ave., SW.

Established: May 15, 1862. Administered by Commissioner of Agriculture until Feb. 9, 1889, when it was made executive department and office of Secretary was created.

Activities: Conducts comprehensive research and educational program relating to agriculture; provides crop reports, commodity standards, meat inspection and other marketing services; administers national forests; aids in flood control; administers price-support and production-adjustment programs; makes loans to farmers.

DEPARTMENT OF COMMERCE

14th St. & Constitution Ave., NW.

Established: Department of Commerce and Labor was created Feb. 14, 1903. On Mar. 4, 1913, all labor activities were transferred out of Department of Commerce and Labor and it was renamed Department of Commerce.

Activities: Fosters and develops foreign and domestic commerce of U. S.; maintains Bureau of the Census, Office of Business Economics, Civil Aeronautics Administration, Coast and Geodetic Survey, Maritime Administration, Patent Office, Bureau of Public Roads, National Bureau of Standards, Weather Bureau, etc.

DEPARTMENT OF LABOR

14th St. & Constitution Ave., NW.

Established: Bureau of Labor was created in 1884 under Department of the Interior; later became independent department without executive rank. Returned to bureau satus in Department of Commerce and Labor, but on Mar. 4, 1913, became independent executive department under its present name.

Activities: Promotes welfare of wage earners of U. S.; improving their working conditions and advancing their opportunities for profitable employment; directs collection and collation of statistics concerning labor conditions; promulgates and enforces certain maximum-hour, minimum-wage, child-labor, safety and health standards.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

4th St. & Independence Ave., SW.

Established: Apr. 11, 1953, replacing Federal Security Agency, which was created Apr. 25, 1939.

Activities: Supervises and co-ordinates various organizations within the department. Organizations are: Food and Drug Administration, Office of Education, Office of Vocational Rehabilitation, Public Health Service, St. Elizabeths Hospital, Social Security Administration; also following Federally supported corporations: American Printing House for the Blind, Gallaudet College and Howard University.

Independent Agencies

ATOMIC ENERGY COMMISSION (AEC)

19th St. & Constitution Ave., NW.

Members: 5. *Established:* Aug. 1, 1946.

Activities: Promotes Federally conducted and private research and development; controls dissemination of information and production, ownership and use of fissionable materials.

CIVIL AERONAUTICS BOARD (CAB)

Dept. of Commerce Bldg.

Members: 5. *Established:* June 30, 1940.

Activities: Regulates economic aspects of U. S. air carrier operation; prescribes safety standards; investigates and analyzes aircraft accidents; assists in development of international air transportation.

CIVIL SERVICE COMMISSION (CSC)

8th & F Sts., NW.

Members: 3. *Established:* Jan. 16, 1883.

Activities: Provides examinations to test fitness of applicants for positions in competitive service; provides personnel in response to requests from appointing officers; investigates applicants for national security purposes; classifies positions; maintains service records.

FEDERAL COMMUNICATIONS COMMISSION (FCC)

Post Office Dept. Bldg.

Members: 7. *Established:* 1934.

Activities: Regulates interstate and foreign communications by wire and radio, including amateur radio and TV; regulates operator's licenses; classifies radio stations and prescribes their services; enforces use of radio for safety purposes on U. S. ships.

FEDERAL RESERVE SYSTEM (FRS), BOARD OF GOVERNORS OF

20th St. & Constitution Ave., NW.

Members: 7. *Established:* Dec. 23, 1913.

Activities: Supervises Federal Reserve banks; influences credit conditions; regulates open-market operations; issues Federal Reserve notes.

FEDERAL TRADE COMMISSION (FTC)

6th St. & Pennsylvania Ave., NW.

Members: 5. *Established:* Sept. 26, 1914.

Activities: Prevents unfair competition,

deceptive practices, false advertising, price discrimination, monopolies.

HOUSING AND HOME FINANCE AGENCY (HHFA)

1626 K St., NW.
Established: July 27, 1947.
Activities: Provides single agency responsible for principal housing programs and functions of Federal government; supervises and co-ordinates activities of Federal National Mortgage Association (FNMA), Home Loan Bank Board, Federal Housing Administration (FHA), Public Housing Administration (PHA) and National Housing Council.

INTERSTATE COMMERCE COMMISSION (ICC)

12th St. & Constitution Ave., NW.
Members: 11. *Established:* Feb. 4, 1887.
Activities: Regulates railroads, motor carriers, water carriers and freight forwarders as to rates, through-routes, services and bills of lading; authorizes mergers or consolidations; authorizes issue of securities by carriers.

NATIONAL LABOR RELATIONS BOARD (NLRB)

3rd & C Sts., SW.
Members: 5. *Established:* July 5, 1935.
Activities: Prevents unfair labor practices by employers or labor organizations; conducts secret ballots among employees to determine their choice of bargaining representatives.

SECURITIES AND EXCHANGE COMMISSION (SEC)

425 2nd St., NW.
Members: 5. *Established:* June 6, 1934.
Activities: Registers and issues regulations for securities and exchanges; registers securities offered for public sale; penalizes violators of regulations subject to appeal to U. S. Court of Appeals.

SMALL BUSINESS ADMINISTRATION (SBA)

811 Vermont Ave., NW.
Established: July 30, 1953.
Activities: Aids and assists the interests of small business firms to insure a fair share of total government contracts; makes loans to small firms and victims of flood and disaster.

TENNESSEE VALLEY AUTHORITY (TVA)

New Sprankle Bldg., Knoxville, Tenn.
Members: 3. *Established:* May 18, 1933.
Activities: Provides navigable channel and flood control of Tennessee River and some of its larger tributaries; disposes of surplus electric power; improves, increases and cheapens fertilizer production.

U. S. TARIFF COMMISSION

8th & E Sts., NW.
Members: 6. *Established:* Sept. 8, 1916.
Activities: Investigates customs laws, unfair competition and foreign and domestic manufacturing costs; advises the President on duty rates.

VETERANS' ADMINISTRATION (VA)

H St. & Vermont Ave., NW.
Established: July 21, 1930.
Activities: Administers laws authorizing benefits for veterans and for their dependents or beneficiaries. Included are hospitalization, pensions, insurance, loans, education, etc.

GOVERNMENT OFFICIALS

(As of September 1955)

Executive Office of the President

THE WHITE HOUSE OFFICE

The Assistant to the President: Sherman Adams
The Deputy Assistant to the President: Wilton B. Persons
Secretary to the President: Bernard M. Shanley
Press Secretary to the President: James C. Hagerty
Special Counsel to the President: Gerald D. Morgan

BUREAU OF THE BUDGET

Director: Rowland R. Hughes

NATIONAL SECURITY COUNCIL

Chairman: Dwight D. Eisenhower, President of the U. S.
Other members: Richard M. Nixon, Vice President of the U. S.; John Foster Dulles, Secretary of State; Charles E. Wilson, Secretary of Defense; Harold E. Stassen, Special Assistant to President for Disarmament; Arthur S. Flemming, Director of Office of Defense Mobilization.
Director of Central Intelligence Agency: Allen W. Dulles
Chairman of Operations Coordinating Board: Herbert Hoover, Jr.

COUNCIL OF ECONOMIC ADVISERS

Chairman: Arthur F. Burns
Other members: Joseph S. Davis, Raymond J. Saulnier.

OFFICE OF DEFENSE MOBILIZATION

Director: Arthur S. Flemming

Executive Departments

DEPARTMENT OF STATE

Secretary: John Foster Dulles
Under Secretary: Herbert Hoover, Jr.

DEPARTMENT OF THE TREASURY
Secretary: George M. Humphrey
Under Secretary: H. Chapman Rose

DEPARTMENT OF DEFENSE
Secretary: Charles E. Wilson
Deputy Secretary: Reuben B. Robertson, Jr.
Secretary of the Army: Wilber M. Brucker
Secretary of the Navy: Charles S. Thomas
Commandant, Marine Corps: Gen. Lemuel C. Shepherd, Jr.
Secretary of the Air Force: Donald A. Quarles
Joint Chiefs of Staff: Adm. Arthur W. Radford, Chairman; Gen. Maxwell D. Taylor, Army; Adm. Arleigh A. Burke, Navy; Gen. Nathan F. Twining, Air Force; Gen. Lemuel C. Shepherd, Jr., Marine Corps (on Marine Corps matters only).

DEPARTMENT OF JUSTICE
Attorney General: Herbert Brownell, Jr.
Deputy Attorney General: William P. Rogers
Director of FBI: J. Edgar Hoover

POST OFFICE DEPARTMENT
Postmaster General: Arthur E. Summerfield
Deputy Postmaster General: Maurice H. Stans

DEPARTMENT OF THE INTERIOR
Secretary: Douglas McKay
Under Secretary: Clarence A. Davis

DEPARTMENT OF AGRICULTURE
Secretary: Ezra Taft Benson
Under Secretary: True D. Morse

DEPARTMENT OF COMMERCE
Secretary: Sinclair Weeks
Under Secretary: Walter Williams

DEPARTMENT OF LABOR
Secretary: James P. Mitchell
Under Secretary: Arthur Larson

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Secretary: Marion B. Folsom
Under Secretary: Herold C. Hunt

Independent Agencies

ATOMIC ENERGY COMMISSION
Chairman: Lewis L. Strauss
Other members: Thomas E. Murray; Dr. W. F. Libby; Dr. John von Neumann; (1 vacancy)

CIVIL AERONAUTICS BOARD
Chairman: Ross Rizley

CIVIL SERVICE COMMISSION
Chairman: Philip Young

FEDERAL COMMUNICATIONS COMMISSION
Chairman: George C. McConnaughey

FEDERAL RESERVE SYSTEM, BOARD OF GOVERNORS OF
Chairman: William McC. Martin, Jr.

FEDERAL TRADE COMMISSION
Chairman: John W. Gwynne

HOUSING AND HOME FINANCE AGENCY
Administrator: Albert M. Cole

INTERSTATE COMMERCE COMMISSION
Chairman: Hugh W. Cross

NATIONAL LABOR RELATIONS BOARD
Chairman: Philip Ray Rodgers

SECURITIES AND EXCHANGE COMMISSION
Chairman: J. Sinclair Armstrong

SMALL BUSINESS ADMINISTRATION
Administrator: Wendell B. Barnes

TENNESSEE VALLEY AUTHORITY
Chairman: Gen. Herbert D. Vogel
Other members: Harry A. Curtis; Raymond R. Paty

U. S. TARIFF COMMISSION
Chairman: Edgar B. Brossard

VETERANS' ADMINISTRATION
Administrator: H. V. Higley

Highest Ranking Officers in the Armed Forces

ARMY

Generals of the Army: George C. Marshall; Douglas MacArthur; Omar N. Bradley.
Generals: J. Lawton Collins; Alfred M. Gruenther; Maxwell D. Taylor; Anthony C. McAuliffe; Lyman L. Lemnitzer; John D. Dahlquist; Williston B. Palmer.

AIR FORCE

Generals: Nathan F. Twining; Thomas D. White; Lauris Norstad; Curtis E. LeMay; Otto P. Weyland; Orval Cook; Earl Partridge; Edwin W. Rawlings; Laurence S. Kuter.

NAVY

Fleet Admirals: William D. Leahy; Ernest J. King; Chester W. Nimitz.
Admirals: Arthur W. Radford; William M. Fechteler; Donald B. Duncan; Felix B. Stump; Jerauld Wright; John H. Cassady; Adleigh A. Burke.

MARINE CORPS

General: Lemuel C. Shepherd.
Lieutenant Generals: Gerald C. Thomas; William O. Brice; Oliver P. Smith; Randolph McC. Pate; Robert H. Pepper.

COAST GUARD

Vice Admiral: Alfred C. Richmond.
Rear Admirals: James A. Hirshfield; H. C. Perkins; Joseph Greenspun; Halert C. Shepheard; Kenneth K. Cowart; William W. Kenner; Joseph F. Van Ackeren.

U. S. Cabinet Members with Dates of Appointment

Although the Constitution made no provision for a President's advisory group, the heads of the three executive departments (State, Treasury and War) and the Attorney General were organized by Washington into such a group; and by about 1793, the name "Cabinet" was applied to it. With the exception of the Attorney General up to 1870 and the Postmaster General from 1829–72, Cabinet members have been heads of executive departments, although other government officials may be called to sit in whenever necessary.

A Cabinet member is appointed by the President, subject to the confirmation of the Senate; and as his term is not fixed, he may be replaced at any time by the President. At a change in Administration, it is customary for him to tender his resignation, but he remains in office until a successor is appointed.

The table of Cabinet members lists only those members who actually served after being duly commissioned. It does not include ad-interim appointments or cases where the appointee declined the office after appointment.

The dates shown are those of appointment. "Contd" indicates that the term continued from the previous Administration for a substantial amount of time. Those cases where the term continued for only a few days, until a new appointment could be made, are not indicated.

WASHINGTON

Secretary of State

Thomas Jefferson	1789
Edmund Randolph	1794
Timothy Pickering	1795

Secretary of the Treasury

Alexander Hamilton	1789
Oliver Wolcott, Jr.	1795

Secretary of War

Henry Knox	1789
Timothy Pickering	1795
James McHenry	1796

Attorney General

Edmund Randolph	1789
William Bradford	1794
Charles Lee	1795

J. ADAMS

Secretary of State

Timothy Pickering	Contd
John Marshall	1800

Secretary of the Treasury

Oliver Wolcott, Jr.	Contd
Samuel Dexter	1801

Secretary of War

James McHenry	Contd
Samuel Dexter	1800

Attorney General

Charles Lee	Contd

Secretary of the Navy

Benjamin Stoddert	1798

JEFFERSON

Secretary of State

James Madison	1801

Secretary of the Treasury

Samuel Dexter	Contd
Albert Gallatin	1801

Secretary of War

Henry Dearborn	1801

Attorney General

Levi Lincoln	1801
Robert Smith	1805
John Breckinridge	1805
Caesar A. Rodney	1807

Secretary of the Navy

Benjamin Stoddert	Contd
Robert Smith	1801

MADISON

Secretary of State

Robert Smith	1809
James Monroe	1811

Secretary of the Treasury

Albert Gallatin	Contd
George W. Campbell	1814
Alexander J. Dallas	1814
William H. Crawford	1816

Secretary of War

William Eustis	1809
John Armstrong	1813
James Monroe	1814
William H. Crawford	1815

Attorney General

Caesar A. Rodney	Contd
William Pinckney	1811
Richard Rush	1814

Secretary of the Navy

Paul Hamilton	1809
William Jones	1813
B. W. Crowninshield	1814

MONROE

Secretary of State

John Quincy Adams	1817

Secretary of the Treasury

William H. Crawford	Contd

Secretary of War

John C. Calhoun	1817

Attorney General

Richard Rush	Contd
William Wirt	1817

Secretary of the Navy

B. W. Crowninshield	Contd
Smith Thompson	1818
Samuel L. Southard	1823

J. Q. ADAMS

Secretary of State

Henry Clay	1825

Secretary of the Treasury

Richard Rush	1825

Secretary of War

James Barbour	1825
Peter B. Porter	1828

Attorney General

William Wirt	Contd

Secretary of the Navy

Samuel L. Southard	Contd

JACKSON

Secretary of State

Martin Van Buren	1829
Edward Livingston	1831
Louis McLane	1833
John Forsyth	1834

Secretary of the Treasury

Samuel D. Ingham	1829
Louis McLane	1831
William J. Duane	1833
Roger B. Taney	1833
Levi Woodbury	1834

Secretary of War

John H. Eaton	1829
Lewis Cass	1831

Attorney General

John M. Berrien	1829
Roger B. Taney	1831
Benjamin F. Butler	1833

Postmaster General[1]

William T. Barry	1829
Amos Kendall	1835

Secretary of the Navy

John Branch	1829
Levi Woodbury	1831
Mahlon Dickerson	1834

VAN BUREN

Secretary of State

John Forsyth	Contd

Secretary of the Treasury

Levi Woodbury	Contd

Secretary of War

Joel R. Poinsett	1837

Attorney General

Benjamin F. Butler	Contd
Felix Grundy	1838
Henry D. Gilpin	1840

Postmaster General

Amos Kendall	Contd
John M. Niles	1840

Secretary of the Navy

Mahlon Dickerson	Contd
James K. Paulding	1838

W. HARRISON

Secretary of State

Daniel Webster	1841

Secretary of the Treasury

Thomas Ewing	1841

Secretary of War

John Bell	1841

Attorney General

John J. Crittenden	1841

Postmaster General

Francis Granger	1841

Secretary of the Navy

George E. Badger	1841

TYLER

Secretary of State

Daniel Webster..... Contd
Abel P. Upshur..... 1843
John C. Calhoun..... 1844

Secretary of the Treasury

Thomas Ewing..... Contd
Walter Forward..... 1841
John C. Spencer..... 1843
George M. Bibb..... 1844

Secretary of War

John Bell..... Contd
John C. Spencer..... 1841
James M. Porter..... 1843
William Wilkins..... 1844

Attorney General

John J. Crittenden.... Contd
Hugh S. Legare..... 1841
John Nelson..... 1843

Postmaster General

Francis Granger..... Contd
Charles A. Wickliffe.... 1841

Secretary of the Navy

George E. Badger..... Contd
Abel P. Upshur..... 1841
David Henshaw..... 1843
Thomas W. Gilmer..... 1844
John Y. Mason..... 1844

POLK

Secretary of State

James Buchanan..... 1845

Secretary of the Treasury

Robert J. Walker..... 1845

Secretary of War

William L. Marcy..... 1845

Attorney General

John Y. Mason..... 1845
Nathan Clifford..... 1846
Isaac Toucey..... 1848

Postmaster General

Cave Johnson..... 1845

Secretary of the Navy

George Bancroft..... 1845
John Y. Mason..... 1846

TAYLOR

Secretary of State

John M. Clayton..... 1849

Secretary of the Treasury

William M. Meredith... 1849

Secretary of War

George W. Crawford.... 1849

Attorney General

Reverdy Johnson..... 1849

Postmaster General

Jacob Collamer..... 1849

Secretary of the Navy

William B. Preston..... 1849

Secretary of the Interior

Thomas Ewing..... 1849

FILLMORE

Secretary of State

Daniel Webster..... 1850
Edward Everett..... 1852

Secretary of the Treasury

Thomas Corwin..... 1850

Secretary of War

Charles M. Conrad..... 1850

Attorney General

John J. Crittenden..... 1850

Postmaster General

Nathan K. Hall..... 1850
Samuel D. Hubbard.... 1852

Secretary of the Navy

William A. Graham.... 1850
John P. Kennedy..... 1852

Secretary of the Interior

Thos. M. T. McKennon. 1850
Alex. H. H. Stuart..... 1850

PIERCE

Secretary of State

William L. Marcy..... 1853

Secretary of the Treasury

James Guthrie..... 1853

Secretary of War

Jefferson Davis..... 1853

Attorney General

Caleb Cushing..... 1853

Postmaster General

James Campbell..... 1853

Secretary of the Navy

James C. Dobbin..... 1853

Secretary of the Interior

Robert McClelland..... 1853

BUCHANAN

Secretary of State

Lewis Cass..... 1857
Jeremiah S. Black..... 1860

Secretary of the Treasury

Howell Cobb..... 1857
Philip F. Thomas..... 1860
John A. Dix..... 1861

Secretary of War

John B. Floyd..... 1857
Joseph Holt..... 1861

Attorney General

Jeremiah S. Black..... 1857
Edwin M. Stanton..... 1860

Postmaster General

Aaron V. Brown..... 1857
Joseph Holt..... 1859
Horatio King..... 1861

Secretary of the Navy

Isaac Toucey..... 1857

Secretary of the Interior

Jacob Thompson..... 1857

LINCOLN

Secretary of State

William H. Seward..... 1861

Secretary of the Treasury

Salmon P. Chase..... 1861
William P. Fessenden.. 1864
Hugh McCulloch..... 1865

Secretary of War

Simon Cameron..... 1861
Edwin M. Stanton..... 1862

Attorney General

Edward Bates..... 1861
James Speed..... 1864

Postmaster General

Montgomery Blair..... 1861
William Dennison..... 1864

Secretary of the Navy

Gideon Welles..... 1861

Secretary of the Interior

Caleb B. Smith..... 1861
John P. Usher..... 1863

JOHNSON

Secretary of State

William H. Seward.... Contd

Secretary of the Treasury

Hugh McCulloch..... Contd

Secretary of War

Edwin M. Stanton.... Contd
John M. Schofield..... 1868

Attorney General

James Speed..... Contd
Henry Stanbery..... 1866
William M. Evarts..... 1868

Postmaster General

William Dennison..... Contd
Alexander W. Randall.. 1866

Secretary of the Navy

Gideon Welles..... Contd

Secretary of the Interior

John P. Usher..... Contd
James Harlan..... 1865
Orville H. Browning.... 1866

GRANT

Secretary of State

Elihu B. Washburne.... 1869
Hamilton Fish..... 1869

Secretary of the Treasury

George S. Boutwell.... 1869
William A. Richardson.. 1873
Benjamin H. Bristow... 1874
Lot M. Morrill..... 1876

Secretary of War

John A. Rawlins..... 1869
William T. Sherman.... 1869
William W. Belknap.... 1869
Alphonso Taft..... 1876
James D. Cameron..... 1876

Attorney General

Ebenezer R. Hoar..... 1869
Amos T. Akerman..... 1870
George H. Williams.... 1871
Edwards Pierrepont.... 1875
Alphonso Taft..... 1876

Postmaster General

John A. J. Creswell.... 1869
James W. Marshall..... 1874
Marshall Jewell..... 1874
James N. Tyner..... 1876

Secretary of the Navy

Adolph E. Borie..... 1869
George M. Robeson.... 1869

Secretary of the Interior

Jacob D. Cox..... 1869
Columbus Delano..... 1870
Zachariah Chandler.... 1875

HAYES

Secretary of State

William M. Evarts..... 1877

Secretary of the Treasury

John Sherman..... 1877

Secretary of War

George W. McCrary.... 1877
Alexander Ramsey..... 1879

Attorney General

Charles Devens..... 1877

Postmaster General

David M. Key..... 1877
Horace Maynard..... 1880

Secretary of the Navy

Richard W. Thompson.. 1877
Nathan Goff, Jr..... 1881

Secretary of the Interior

Carl Schurz..... 1877

GARFIELD

Secretary of State

James G. Blaine..... 1881

Secretary of the Treasury

William Windom..... 1881

Secretary of War

Robert T. Lincoln..... 1881

Attorney General

Wayne MacVeagh..... 1881

Postmaster General

Thomas L. James..... 1881

Secretary of the Navy

William H. Hunt..... 1881

Secretary of the Interior

Samuel J. Kirkwood... 1881

ARTHUR

Secretary of State
James G. Blaine..... Contd
F. T. Frelinghuysen.... 1881

Secretary of the Treasury
William Windom..... Contd
Charles J. Folger..... 1881
Walter Q. Gresham.... 1884
Hugh McCulloch..... 1884

Secretary of War
Robert T. Lincoln.....Contd

Attorney General
Wayne MacVeagh.....Contd
Benjamin H. Brewster. 1881

Postmaster General
Thomas L. James..... Contd
Timothy O. Howe..... 1881
Walter Q. Gresham.... 1883
Frank Hatton..... 1884

Secretary of the Navy
William H. Hunt..... Contd
William E. Chandler.... 1882

Secretary of the Interior
Samuel J. Kirkwood.. Contd
Henry M. Teller..... 1882

CLEVELAND

Secretary of State
Thomas F. Bayard..... 1885

Secretary of the Treasury
Daniel Manning..... 1885
Charles S. Fairchild.... 1887

Secretary of War
William C. Endicott.... 1885

Attorney General
Augustus H. Garland... 1885

Postmaster General
William F. Vilas..... 1885
Don M. Dickinson..... 1888

Secretary of the Navy
William C. Whitney.... 1885

Secretary of the Interior
Lucius Q. C. Lamar.... 1885
William F. Vilas..... 1888

Secretary of Agriculture
Norman J. Colman..... 1889

HARRISON

Secretary of State
James G. Blaine..... 1889
John W. Foster..... 1892

Secretary of the Treasury
William Windom..... 1889
Charles Foster..... 1891

Secretary of War
Redfield Proctor..... 1889
Stephen B. Elkins..... 1891

Attorney General
William H. H. Miller.... 1889

Postmaster General
John Wanamaker..... 1889

Secretary of the Navy
Benjamin F. Tracy..... 1889

Secretary of the Interior
John W. Noble..... 1889

Secretary of Agriculture
Jeremiah M. Rusk..... 1889

CLEVELAND

Secretary of State
Walter Q. Gresham.... 1893
Richard Olney..... 1895

Secretary of the Treasury
John G. Carlisle..... 1893

Secretary of War
Daniel S. Lamont..... 1893

Attorney General
Richard Olney..... 1893
Judson Harmon..... 1895

Postmaster General
Wilson S. Bissell..... 1893
William L. Wilson..... 1895

Secretary of the Navy
Hilary A. Herbert..... 1893

Secretary of the Interior
Hoke Smith..... 1893
David R. Francis..... 1896

Secretary of Agriculture
Julius Sterling Morton. 1893

McKINLEY

Secretary of State
John Sherman..... 1897
William R. Day..... 1898
John Hay..... 1898

Secretary of the Treasury
Lyman J. Gage..... 1897

Secretary of War
Russell A. Alger..... 1897
Elihu Root..... 1899

Attorney General
Joseph McKenna..... 1897
John W. Griggs..... 1898
Philander C. Knox..... 1901

Postmaster General
James A. Gary..... 1897
Charles E. Smith..... 1898

Secretary of the Navy
John D. Long..... 1897

Secretary of the Interior
Cornelius N. Bliss..... 1897
Ethan A. Hitchcock.... 1898

Secretary of Agriculture
James Wilson..... 1897

T. ROOSEVELT

Secretary of State
John Hay..... Contd
Elihu Root..... 1905
Robert Bacon..... 1909

Secretary of the Treasury
Lyman J. Gage..... Contd
Leslie M. Shaw..... 1902
George B. Cortelyou... 1907

Secretary of War
Elihu Root..... Contd
William H. Taft..... 1904
Luke E. Wright..... 1908

Attorney General
Philander C. Knox.... Contd
William H. Moody..... 1904
Charles J. Bonaparte... 1906

Postmaster General
Charles E. Smith..... Contd
Henry C. Payne..... 1902
Robert J. Wynne 1904
George B. Cortelyou.... 1905
George von L. Meyer... 1907

Secretary of the Navy
John D. Long..... Contd
William H. Moody..... 1902
Paul Morton..... 1904
Charles J. Bonaparte... 1905
Victor H. Metcalf..... 1906
Truman H. Newberry.. 1908

Secretary of the Interior
Ethan A. Hitchcock... Contd
James R. Garfield..... 1907

Secretary of Agriculture
James Wilson..... Contd

Secretary of Commerce and Labor
George B. Cortelyou... 1903
Victor H. Metcalf..... 1904
Oscar S. Straus..... 1906

TAFT

Secretary of State
Philander C. Knox..... 1909

Secretary of the Treasury
Franklin MacVeagh.... 1909

Secretary of War
Jacob M. Dickinson.... 1909
Henry L. Stimson..... 1911

Attorney General
George W. Wickersham. 1909

Postmaster General
Frank H. Hitchcock.... 1909

Secretary of the Navy
George von L. Meyer... 1909

Secretary of the Interior
Richard A. Ballinger... 1909
Walter L. Fisher..... 1911

Secretary of Agriculture
James Wilson..... Contd

Secretary of Commerce and Labor
Charles Nagel..... 1909

WILSON

Secretary of State
William J. Bryan..... 1913
Robert Lansing..... 1915
Bainbridge Colby..... 1920

Secretary of the Treasury
William G. McAdoo.... 1913
Carter Glass..... 1918
David F. Houston..... 1920

Secretary of War
Lindley M. Garrison.... 1913
Newton D. Baker..... 1916

Attorney General
James C. McReynolds.. 1913
Thomas W. Gregory.... 1914
A. Mitchell Palmer..... 1919

Postmaster General
Albert S. Burleson..... 1913

Secretary of the Navy
Josephus Daniels..... 1913

Secretary of the Interior
Franklin K. Lane..... 1913
John B. Payne..... 1920

Secretary of Agriculture
David F. Houston..... 1913
Edwin T. Meredith..... 1920

Secretary of Commerce
William C. Redfield.... 1913
Joshua W. Alexander... 1919

Secretary of Labor
William B. Wilson..... 1913

HARDING

Secretary of State
Charles E. Hughes..... 1921

Secretary of the Treasury
Andrew W. Mellon..... 1921

Secretary of War
John W. Weeks..... 1921

Attorney General
Harry M. Daugherty.... 1921

Postmaster General
Will H. Hays..... 1921
Hubert Work..... 1922
Harry S. New..... 1923

Secretary of the Navy
Edwin Denby..... 1921

Secretary of the Interior
Albert B. Fall..... 1921
Hubert Work..... 1923

Secretary of Agriculture
Henry C. Wallace..... 1921

Secretary of Commerce
Herbert Hoover..... 1921

Secretary of Labor
James J. Davis..... 1921

COOLIDGE

Secretary of State
Charles E. Hughes.... Contd
Frank B. Kellogg..... 1925

Secretary of the Treasury
Andrew W. Mellon.... Contd

Secretary of War
John W. Weeks..... Contd
Dwight F. Davis..... 1925

Attorney General
Harry M. Daugherty... Contd
Harlan F. Stone..... 1924
John G. Sargent..... 1925

Postmaster General
Harry S. New..... Contd

Secretary of the Navy
Edwin Denby..... Contd
Curtis D. Wilbur..... 1924

Secretary of the Interior
Hubert Work..... Contd
Roy O. West..... 1928

Secretary of Agriculture
Henry C. Wallace..... Contd
Howard M. Gore..... 1924
William M. Jardine.... 1925

Secretary of Commerce
Herbert Hoover..... Contd
William F. Whiting..... 1928

Secretary of Labor
James J. Davis..... Contd

HOOVER

Secretary of State
Frank B. Kellogg..... Contd
Henry L. Stimson..... 1929

Secretary of the Treasury
Andrew W. Mellon.... Contd
Ogden L. Mills..... 1932

Secretary of War
James W. Good..... 1929
Patrick J. Hurley..... 1929

Attorney General
William D. Mitchell.... 1929

Postmaster General
Walter F. Brown..... 1929

Secretary of the Navy
Charles F. Adams..... 1929

Secretary of the Interior
Ray Lyman Wilbur..... 1929

Secretary of Agriculture
Arthur M. Hyde..... 1929

Secretary of Commerce
Robert P. Lamont..... 1929
Roy D. Chapin..... 1932

Secretary of Labor
James J. Davis..... Contd
William N. Doak..... 1930

F. ROOSEVELT

Secretary of State
Cordell Hull..... 1933
E. R. Stettinius, Jr..... 1944

Secretary of the Treasury
William H. Woodin..... 1933
Henry Morgenthau, Jr.. 1934

Secretary of War
George H. Dern..... 1933
Harry H. Woodring..... 1936
Henry L. Stimson..... 1940

Attorney General
Homer S. Cummings... 1933
Frank Murphy..... 1939
Robert H. Jackson..... 1940
Francis Biddle..... 1941

Postmaster General
James A. Farley..... 1933
Frank C. Walker..... 1940

Secretary of the Navy
Claude A. Swanson.... 1933
Charles Edison..... 1940
Frank Knox..... 1940
James Forrestal..... 1944

Secretary of the Interior
Harold L. Ickes..... 1933

Secretary of Agriculture
Henry A. Wallace..... 1933
Claude R. Wickard..... 1940

Secretary of Commerce
Daniel C. Roper..... 1933
Harry L. Hopkins..... 1938
Jesse H. Jones..... 1940
Henry A. Wallace..... 1945

Secretary of Labor
Frances Perkins..... 1933

TRUMAN

Secretary of State
E. R. Stettinius, Jr.... Contd
James F. Byrnes..... 1945
George C. Marshall.... 1947
Dean Acheson..... 1949

Secretary of the Treasury
Henry Morgenthau, Jr. Contd
Fred M. Vinson..... 1945
John W. Snyder..... 1946

Secretary of Defense
James Forrestal..... 1947
Louis A. Johnson..... 1949
George C. Marshall.... 1950
Robert A. Lovett..... 1951

Attorney General
Francis Biddle..... Contd
Tom C. Clark..... 1945
J. Howard McGrath.... 1949
James P. McGranery... 1952

Postmaster General
Frank C. Walker..... Contd
Robert E. Hannegan... 1945
Jesse M. Donaldson.... 1947

Secretary of the Interior
Harold L. Ickes..... Contd
Julius C. Krug..... 1946
Oscar L. Chapman..... 1949

Secretary of Agriculture
Claude R. Wickard.... Contd
Clinton P. Anderson... 1945
Charles F. Brannan.... 1948

Secretary of Commerce
Henry A. Wallace..... Contd
W. Averell Harriman... 1946
Charles Sawyer..... 1948

Secretary of Labor
Frances Perkins..... Contd
Lewis B. Schwellenbach 1945
Maurice J. Tobin..... 1948

Secretary of War[2]
Henry L. Stimson..... Contd
Robert P. Patterson.... 1945
Kenneth C. Royall..... 1947

Secretary of the Navy[2]
James Forrestal..... Contd

EISENHOWER

Secretary of State
John Foster Dulles..... 1953

Secretary of the Treasury
George M. Humphrey.. 1953

Secretary of Defense
Charles E. Wilson..... 1953

Attorney General
Herbert Brownell, Jr... 1953

Postmaster General
Arthur Summerfield... 1953

Secretary of the Interior
Douglas McKay..... 1953

Secretary of Agriculture
Ezra Taft Benson..... 1953

Secretary of Commerce
Sinclair Weeks..... 1953

Secretary of Labor
Martin P. Durkin..... 1953
James P. Mitchell..... 1953

Secretary of Health, Education and Welfare
Oveta Culp Hobby..... 1953
Marion B. Folsom..... 1955

Special Assistant to President for Disarmament
Harold E. Stassen..... 1955

[1] The Postmaster General did not become a Cabinet member until 1829. Earlier Postmasters General were: Samuel Osgood (1789), Timothy Pickering (1791), Joseph Habersham (1795), Gideon Granger (1801), Return J. Meigs, Jr. (1814) and John McLean (1823). [2] On July 26, 1947, the Departments of War and of the Navy were incorporated into the Department of Defense.

The Confederate States of America, 1861–65

President—Jefferson Davis; born, Christian (now Todd) Co., Ky., June 3, 1808; died, Dec. 6, 1889. Vice President—Alexander H. Stephens.

CABINET*

Secretary of State
Robert Toombs..... 1861
Robert M. T. Hunter... 1861
Judah P. Benjamin.... 1862

Secretary of Treasury
Christopher Memminger 1861
George A. Trenholm... 1864

Secretary of War
Leroy P. Walker..... 1861
Judah P. Benjamin.... 1861
George W. Randolph... 1862
James A. Seddon..... 1862
John C. Breckinridge... 1865

Secretary of Navy
Stephen R. Mallory.... 1861

Postmaster General
Henry T. Ellett..... 1861
John H. Reagan..... 1861

Attorney General
Judah P. Benjamin.... 1861
Thomas Bragg..... 1861
Thomas N. Watts..... 1862
George Davis..... 1864

* Dates are those of appointment.

Justices of the United States Supreme Court

Name	State	Term	Years	Born	Died
*John Jay	N. Y.	1789–1795	6	1745	1829
John Rutledge	S. C.	1789–1791	2	1739	1800
William Cushing	Mass.	1789–1810	21	1732	1810
James Wilson	Pa.	1789–1798	9	1742	1798
John Blair	Va.	1789–1796	7	1732	1800
James Iredell	N. C.	1790–1799	9	1751	1799
Thomas Johnson	Md.	1792–1793	½	1732	1819
William Paterson	N. J.	1793–1806	13	1745	1806
*John Rutledge†	S. C.	1795–1795	..	1739	1800
Samuel Chase	Md.	1796–1811	15	1741	1811
*Oliver Ellsworth	Conn.	1796–1800	4	1745	1807
Bushrod Washington	Va.	1798–1829	31	1762	1829
Alfred Moore	N. C.	1800–1804	4	1755	1810
*John Marshall	Va.	1801–1835	34	1755	1835
William Johnson	S. C.	1804–1834	30	1771	1834
Brock. Livingston	N. Y.	1806–1823	17	1757	1823
Thomas Todd	Ky.	1807–1826	19	1765	1826
Joseph Story	Mass.	1811–1845	34	1779	1845
Gabriel Duval	Md.	1811–1835	23	1752	1844
Smith Thompson	N. Y.	1823–1843	20	1768	1843
Robert Trimble	Ky.	1826–1828	2	1777	1828
John McLean	Ohio	1829–1861	32	1785	1861
Henry Baldwin	Pa.	1830–1844	14	1780	1844
James M. Wayne	Ga.	1835–1867	32	1790	1867
*Roger B. Taney	Md.	1836–1864	28	1777	1864
Philip P. Barbour	Va.	1836–1841	5	1783	1841
John Catron	Tenn.	1837–1865	28	1786	1865
John McKinley	Ala.	1837–1852	15	1780	1852
Peter V. Daniel	Va.	1841–1860	19	1784	1860
Samuel Nelson	N. Y.	1845–1872	27	1792	1873
Levi Woodbury	N. H.	1845–1851	6	1789	1851
Robert C. Grier	Pa.	1846–1870	23	1794	1870
Benjamin R. Curtis	Mass.	1851–1857	6	1809	1874
John A. Campbell	Ala.	1853–1861	8	1811	1889
Nathan Clifford	Maine	1858–1881	23	1803	1881
Noah H. Swayne	Ohio	1862–1881	18	1804	1884
Samuel F. Miller	Iowa	1862–1890	28	1816	1890
David Davis	Ill.	1862–1877	15	1815	1886
Stephen J. Field	Calif.	1863–1897	34	1816	1899
*Salmon P. Chase	Ohio	1864–1873	9	1808	1873
William Strong	Pa.	1870–1880	10	1808	1895
Joseph P. Bradley	N. J.	1870–1892	22	1813	1892
Ward Hunt	N. Y.	1872–1882	10	1810	1886
*Morrison R. Waite	Ohio	1874–1888	14	1816	1888
John M. Harlan	Ky.	1877–1911	34	1833	1911
William B. Woods	Ga.	1880–1887	7	1824	1887
Stanley Matthews	Ohio	1881–1889	8	1824	1889
Horace Gray	Mass.	1881–1902	21	1828	1902
Samuel Blatchford	N. Y.	1882–1893	11	1820	1893
Lucius Q. Lamar	Miss.	1888–1893	5	1825	1893
*Melville W. Fuller	Ill.	1888–1910	22	1833	1910
David J. Brewer	Kans.	1889–1910	21	1837	1910
Henry B. Brown	Mich.	1890–1906	16	1836	1913
George Shiras, Jr.	Pa.	1892–1903	11	1832	1924
Howell E. Jackson	Tenn.	1893–1895	2	1832	1895
Edward D. White	La.	1894–1910	16	1845	1921
Rufus W. Peckham	N. Y.	1895–1909	14	1838	1909
Joseph McKenna	Calif.	1898–1925	27	1843	1926
Oliver W. Holmes	Mass.	1902–1932	30	1841	1935
William R. Day	Ohio	1903–1922	19	1849	1923
William H. Moody	Mass.	1906–1910	4	1853	1917
Horace H. Lurton	Tenn.	1909–1914	5	1844	1914
*Edward D. White	La.	1910–1921	11	1845	1921
Charles E. Hughes	N. Y.	1910–1916	6	1862	1948
Willis Van Devanter	Wyo.	1910–1937	26	1859	1941
Joseph R. Lamar	Ga.	1910–1916	6	1857	1916
Mahlon Pitney	N. J.	1912–1923	11	1858	1924
Jas. C. McReynolds	Tenn.	1914–1941	26	1862	1946
Louis D. Brandeis	Mass.	1916–1939	23	1856	1941
John H. Clarke	Ohio	1916–1922	6	1857	1945
*William H. Taft	Conn.	1921–1930	9	1857	1930
George Sutherland	Utah	1922–1938	16	1862	1942
Pierce Butler	Minn.	1922–1939	17	1866	1939
Edward T. Sanford	Tenn.	1923–1930	7	1865	1930
Harlan F. Stone	N. Y.	1925–1941	16	1872	1946
*Charles E. Hughes	N. Y.	1930–1941	11	1862	1948
Owen J. Roberts	Pa.	1930–1945	15	1875	1955
Benjamin N. Cardozo	N. Y.	1932–1938	6	1870	1938
Hugo L. Black	Ala.	1937–		1886	
Stanley F. Reed	Ky.	1938–		1884	
Felix Frankfurter	Mass.	1939–		1882	
William O. Douglas	Conn.	1939–		1898	
Frank Murphy	Mich.	1940–1949	9	1890	1949
*Harlan F. Stone	N. Y.	1941–1946	5	1872	1946
James F. Byrnes	S. C.	1941–1942	1	1879	
Robert H. Jackson	N. Y.	1941–1954	13	1892	1954
Wiley B. Rutledge	Iowa	1943–1949	6	1894	1949
Harold H. Burton	Ohio	1945–		1888	
*Fred M. Vinson	Ky.	1946–1953	7	1890	1953
Tom C. Clark	Tex.	1949–		1899	
Sherman Minton	Ind.	1949–		1890	
*Earl Warren	Calif.	1953–		1891	
John M. Harlan	N. Y.	1955–		1899	

* Chief Justices. † Appointed and served one term, but not confirmed by Senate.

Federal Impeachments

Source: Congressional Directory.

The Senate has sat as a court of impeachment in the following cases:

WILLIAM BLOUNT, Senator from Tennessee; charges dismissed for want of jurisdiction, January 14, 1799.

JOHN PICKERING, Judge of the U. S. District Court for New Hampshire; removed from office March 12, 1804.

SAMUEL CHASE, Associate Justice of the Supreme Court; acquitted March 1, 1805.

JAMES H. PECK, Judge of the U. S. District Court for Missouri; acquitted Jan. 31, 1831.

WEST H. HUMPHREYS, Judge of the United States District Court for the middle, eastern, and western districts of Tennessee; removed from office June 26, 1862.

ANDREW JOHNSON, President of the United States; acquitted May 26, 1868.

WILLIAM W. BELKNAP, Secretary of War; acquitted Aug. 1, 1876.

CHARLES SWAYNE, Judge of the United States District Court for the northern district of Florida; acquitted Feb. 27, 1905.

ROBERT W. ARCHBALD, Associate Judge, United States Commerce Court; removed from office January 13, 1913.

GEORGE W. ENGLISH, Judge of the U. S. District Court for the eastern district of Illinois; resigned office November 4, 1926; impeachment proceedings dismissed.

HAROLD LOUDERBACK, Judge of the U. S. District Court for the northern district of California; acquitted May 24, 1933.

HALSTED L. RITTER, Judge of the U. S. District Court for the southern district of Florida; removed April 17, 1936.

SPEAKERS OF THE HOUSE OF REPRESENTATIVES

Source: Congressional Directory.

Name and state	Congress	Dates served
Frederick A. C. Muhlenberg (Pa.)	1	1789–1791
Jonathan Trumbull (Conn.)	2	1791–1793
Frederick A. C. Muhlenberg (Pa.)	3	1793–1795
Jonathan Dayton (N. J.)[1]	4–5	1795–1799
Theodore Sedgwick (Mass.)	6	1799–1801
Nathaniel Macon (N. C.)	7–9	1801–1807
Joseph B. Varnum (Mass.)	10–11	1807–1811
Henry Clay (Ky.)[2]	12–13	1811–1814
Langdon Cheves (S. C.)	13	1814–1815
Henry Clay (Ky.)[3]	14–16	1815–1820
John W. Taylor (N. Y.)	16	1820–1821
Philip P. Barbour (Va.)	17	1821–1823
Henry Clay (Ky.)	18	1823–1825
John W. Taylor (N. Y.)	19	1825–1827
Andrew Stevenson (Va.)[4]	20–23	1827–1834
John Bell (Tenn.)	23	1834–1835
James K. Polk (Tenn.)	24–25	1835–1839
Robert M. T. Hunter (Va.)	26	1839–1841
John White (Ky.)	27	1841–1843
John W. Jones (Va.)	28	1843–1845
John W. Davis (Ind.)	29	1845–1847
Robert C. Winthrop (Mass.)	30	1847–1849
Howell Cobb (Ga.)	31	1849–1851
Linn Boyd (Ky.)	32–33	1851–1855
Nathaniel P. Banks (Mass.)	34	1855–1857
James L. Orr (S. C.)	35	1857–1859
Wm. Pennington (N. J.)	36	1859–1861
Galusha A. Grow (Pa.)	37	1861–1863
Schuyler Colfax (Ind.)	38–40	1863–1869
Theodore M. Pomeroy (N. Y.)[5]	40	1869–1869
James G. Blaine (Maine)	41–43	1869–1875
Michael C. Kerr (Ind.)[6]	44	1875–1876
Samuel J. Randall (Pa.)	44–46	1876–1881
J. Warren Keifer (Ohio)	47	1881–1883
John G. Carlisle (Ky.)	48–50	1883–1889
Thomas B. Reed (Maine)	51	1889–1891
Charles F. Crisp (Ga.)	52–53	1891–1895
Thomas B. Reed (Maine)	54–55	1895–1899
David B. Henderson (Iowa)	56–57	1899–1903
Joseph G. Cannon (Ill.)	58–61	1903–1911
Champ Clark (Mo.)	62–65	1911–1919
Frederick H. Gillett (Mass.)	66–68	1919–1925
Nicholas Longworth (Ohio)	69–71	1925–1931
John N. Garner (Tex.)	72	1931–1933
Henry T. Rainey (Ill.)[7]	73	1933–1934
Joseph W. Byrns (Tenn.)[8]	74	1935–1936
William B. Bankhead (Ala.)[9]	74–76	1936–1940
Sam Rayburn (Tex.)	76–79	1940–1947
Joseph W. Martin, Jr. (Mass.)	80	1947–1949
Sam Rayburn (Tex.)	81–82	1949–1953
Joseph W. Martin, Jr. (Mass.)	83	1953–1955
Sam Rayburn (Tex.)	84	1955–

[1] George Dent (Md.) was elected Speaker pro tempore for Apr. 20 and May 28, 1798. [2] Resigned during 2d session of 13th Congress. [3] Resigned between 1st and 2d sessions of 16th Congress. [4] Resigned during 1st session of 23d Congress. [5] Elected Speaker and served the day of adjournment. [6] Died between 1st and 2d sessions of 44th Congress. During 1st session, there were two Speakers pro tempore: Samuel S. Cox (N. Y.), appointed for Feb. 17, May 12 and June 19, 1876, and Milton Saylor (Ohio), appointed for June 4, 1876. [7] Died 1934 after adjournment of 2nd session of 73rd Congress. [8] Died during 2d session of 74th Congress. [9] Died during 3d session of 76th Congress.

The White House

Source: National Park Service.

The White House, the official residence of the President, is located on Pennsylvania Avenue in Washington, D. C. The site covering about 18 acres was selected by President Washington and Pierre Charles L'Enfant, and the architect was James Hoban. The design of the mansion is said to have been suggested by the Duke of Leinster's Palace in Ireland. The cornerstone was laid Oct. 13, 1792, and the first residents were President and Mrs. John Adams in Nov., 1800. The building was fired by the British in 1814, and the sandstone exterior was painted white during the course of reconstruction.

The rooms for public functions are on the first floor; on the second are the President's apartments. The most celebrated public room is the East Room, where formal receptions take place. Other public rooms are the Red Room, the Green Room, and the Blue Room. The State Dining Room is used for formal dinners.

The Executive Office, a three-story structure at the west end of the West Terrace, was added to the original building in 1902 to accommodate the President's office staff, and several additions have since been made. In 1942, a three-story building was erected at the end of the East Terrace, and now serves as the White House main entrance. In 1948, a second-story balcony was added to the White House inside the Ionic pillars of the south portico.

From Nov. 1948 to Mar. 1952, the White House was closed for social engagements and sightseers because of the deterioration of the building and the fear that it might collapse at any time. The walls were retained and strengthened, and the interior was rebuilt. There are now 132 rooms instead of the former 62.

The Cairo Conference

Important provisions of the Conference, which was held Nov. 22-26, 1943:

The several military missions have agreed upon future military operations against Japan. The Three Great Allies expressed their resolve to bring unrelenting pressure against their brutal enemies by sea, land, and air. This pressure is already rising.

The Three Great Allies are fighting this war to restrain and punish the aggression of Japan. They covet no gain for themselves and have no thought of territorial expansion. It is their purpose that Japan shall be stripped of all the islands in the Pacific which she has seized or occupied since the beginning of the first World War in 1914, and that all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China. Japan will also be expelled from all other territories which she has taken by violence and greed. The aforesaid Three Great Powers, mindful of the enslavement of the people of Korea, are determined that in due course Korea shall become free and independent.

With these objectives in view the three Allies, in harmony with those of the United Nations at war with Japan, will continue to persevere in the serious and prolonged operations necessary to procure the unconditional surrender of Japan.

The Teheran Conference

(Nov. 28-Dec. 1, 1943)

The President of the United States of America, the Premier of the Union of Soviet Socialist Republics, and the Prime Minister of the United Kingdom, have consulted with each other and with the Prime Minister of Iran, desire to declare the mutual agreement of their three Governments regarding relations with Iran.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom recognize the assistance which Iran has given in the prosecution of the war against the common enemy, particularly by facilitating transportation of supplies from overseas to the Soviet Union. The three Governments realize that the war has caused special economic difficulties for Iran and they are agreed that they will continue to make available to the Government of Iran such economic assistance as may be possible, having regard to the heavy demands made upon them by their world-wide military operations and to the world-wide shortage of transport, raw materials and supplies for civilian consumption.

With respect to the post-war period, the Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are in accord with the Government of Iran that any economic problem confronting Iran at the close of hostilities should receive full consideration along with those of the other members of the United Nations by conferences or international agencies held or created to deal with international economic matters.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are at one with the Government of Iran in their desire for the maintenance of the independence, sovereignty and territorial integrity of Iran. They count upon the participation of Iran together with all other peace-loving nations in the establishment of international peace, security and prosperity after the war in accordance with the principles of the Atlantic Charter, to which all four governments have continued to subscribe.

The Yalta Conference

Important provisions of the Conference, which was held Feb. 4-11, 1945:

The Occupation and Control of Germany

We have agreed on common policies and plans for enforcing the unconditional surrender terms which we shall impose together on Nazi Germany after German armed resistance has been finally crushed. These terms will not be made known until the final defeat of Germany has been accomplished. Under the agreed plan, the forces of the three powers will each occupy a separate zone of Germany. Coordinated administration and control has been provided for under the plan through a central Control Commission, consisting of the supreme commanders of the three powers, with headquarters in Berlin. It has been agreed that France should be invited by the three powers, if she should so desire, to take over a zone of occupation, and to participate as a fourth member of the Control Commission. The limits of the French zone will be agreed upon by the four Governments concerned through their representatives on the European Advisory Commission.

It is our inflexible purpose to destroy German militarism and nazism and to ensure that Germany will never again be able to disturb the peace of the world. We are determined to disarm and disband all

German armed forces; break up for all time the German General Staff that has repeatedly contrived the resurgence of German militarism; remove or destroy all German military equipment; eliminate or control all German industry that could be used for military production; bring all war criminals to just and swift punishment and exact reparation in kind for the destruction wrought by the Germans; wipe out the Nazi Party, Nazi laws, organizations, and institutions, remove all Nazi and militarist influences from public office and from the cultural and economic life of the German people; and take in harmony such other measures in Germany as may be necessary to the future peace and safety of the world. It is not our purpose to destroy the people of Germany, but only when nazism and militarism have been extirpated will there be hope for a decent life for Germans, and a place for them in the comity of nations.

Terms Under Which Russia Entered the War Against Japan

The leaders of the Three Great Powers—the Soviet Union, the United States of America and Great Britain—have agreed that in two or three months after Germany has surrendered and the war in Europe has terminated the Soviet Union shall enter into the war against Japan on the side of the Allies on condition that:

1. The status quo in Outer Mongolia (The Mongolian People's Republic) shall be preserved;

2. The former rights of Russia violated by the treacherous attack of Japan in 1904 shall be restored, viz.:

(a) the southern part of Sakhalin as well as all the islands adjacent to it shall be returned to the Soviet Union,

(b) the commercial port of Dairen shall be internationalized, the preeminent interests of the Soviet Union in this port being safeguarded and the lease of Port Arthur as a naval base of the U.S.S.R. restored,

(c) the Chinese-Eastern Railroad and the South-Manchurian Railroad which provides an outlet to Dairen shall be jointly operated by the establishment of a joint Soviet-Chinese Company, it being understood that the preeminent interests of the Soviet Union shall be safeguarded and that China shall retain full sovereignty in Manchuria;

3. The Kurile Islands shall be handed over to the Soviet Union.

It is understood, that the agreement concerning Outer Mongolia and the ports and railroads referred to above will require concurrence of Generalissimo Chiang Kai-shek. The President will take measures in order to obtain this concurrence on advice from Marshal Stalin.

The Heads of the Three Great Powers have agreed that these claims of the Soviet Union shall be unquestionably fulfilled after Japan has been defeated.

For its part the Soviet Union expresses its readiness to conclude with the National Government of China a pact of friendship and alliance between the U.S.S.R. and China in order to render assistance to China with its armed forces for the purpose of liberating China from the Japanese yoke.

The Potsdam Declaration

Text of the declaration issued at Potsdam, Germany, July 26, 1945, outlining the terms under which Japan would be allowed to surrender:

1. We, the President of the United States, the President of the national government of the Republic of China and the Prime Minister of Great Britain, representing the hundreds of millions of our countrymen, have conferred and agreed that Japan shall be given the opportunity to end this war.

2. The prodigious land, sea, and air forces of the United States, the British Empire and China, many times reinforced by their armies and air fleets from the west, are poised to strike the final blow at Japan. This military power is sustained and inspired by the determination of all allied nations to prosecute the war against Japan until she ceases to resist.

3. The result of the futile and senseless German resistance to the might of the aroused free peoples of the world stands forth in awful clarity as an example to the people of Japan.

The might that now converges on Japan is immeasurably greater than that which, when applied to the resisting Nazis, necessarily laid waste to the land, the industry, and the method of life of the whole German people.

The full application of our military power, backed by our resolve, will mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.

4. The time has come for Japan to decide whether she will continue to be controlled by these self-willed militaristic advisers whose unintelligent calculations have brought the empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.

5. The following are our terms: we will not deviate from them; there are no alternatives; we shall brook no delay.

6. There must be eliminated for all time the authority and influence of those

who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security, and justice will be impossible until irresponsible militarism is driven from the world.

7. Until such a new order is established and until there is convincing proof that Japan's war-making power is destroyed, points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.

8. The terms of the Cairo declaration shall be carried out and Japanese sovereignty shall be limited to the Islands of Honshu, Hokkaido, Kyushu, Shikoku and such minor islands as we determine.

9. Japanese military forces after being completely disarmed shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.

10. We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners.

The Japanese government shall remove all obstacles to the revival and strengthening of democratic tendencies among the Japanese people. Freedom of speech and religion and of thought, as well as respect for the fundamental human rights, shall be established.

11. Japan shall be permitted to maintain such industries as will sustain her economy and permit the payment of just reparation in kind, but not those industries which will enable her to rearm for war.

To this end, access to, as distinguished from control of, raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.

12. The occupying forces of the Allies shall be withdrawn from Japan as soon as these objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.

13. We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

North Atlantic Treaty

Signed at Washington, D.C., April 4, 1949

The Parties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments.

They are determined to safeguard the freedom, common heritage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promote stability and well-being in the North Atlantic area.

They are resolved to unite their efforts for collective defense and for the preservation of peace and security.

They therefore agree to this North Atlantic Treaty:

Article 1

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security, and justice, are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

Article 2

The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.

Article 3

In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack.

Article 4

The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.

Article 5

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith,

individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

Article 6

For the purpose of Article 5 an armed attack on one or more of the Parties is deemed to include an armed attack on the territory of any of the Parties in Europe or North America, on the Algerian departments of France, on the occupation forces of any Party in Europe, on the islands under the jurisdiction of any Party in the North Atlantic area north of the Tropic of Cancer or on the vessels or aircraft in this area of any of the Parties.

Article 7

This Treaty does not affect, and shall not be interpreted as affecting, in any way the rights and obligations under the Charter of the Parties which are members of the United Nations, or the primary responsibility of the Security Council for the maintenance of international peace and security.

Article 8

Each Party declares that none of the international engagements now in force between it and any other of the Parties or any third state is in conflict with the provisions of this Treaty, and undertakes not to enter into any international engagement in conflict with this Treaty.

Article 9

The Parties hereby establish a council, on which each of them shall be represented, to consider matters concerning the implementation of this Treaty. The council shall be so organized as to be able to meet promptly at any time. The council shall set up such subsidiary bodies as may be necessary; in particular it shall establish immediately a defense committee which shall recommend measures for the implementation of Articles 3 and 5.

Article 10

The Parties may, by unanimous agreement, invite any other European state in a position to further the principles of this Treaty and to contribute to the security of the North Atlantic area to accede to this Treaty. Any state so invited may become a party to the Treaty by depositing its instrument of accession with the Government of the United States of America. The Government of the United States of America will inform each of the Parties of the deposit of each such instrument of accession.

Article 11

This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes. The instruments of ratification shall be deposited as soon as possible with the Government of the United States of America, which will notify all the other signatories of each deposit. The Treaty shall enter into force between the states which have ratified it as soon as the ratifications of the majority of the signatories, including the ratifications of Belgium, Canada, France, Luxemburg, the Netherlands, the United Kingdom and the United States, have been deposited and shall come into effect with respect to other states on the date of the deposit of their ratifications.

Article 12

After the Treaty has been in force for ten years, or at any time thereafter, the Parties shall, if any of them so requests, consult together for the purpose of reviewing the Treaty, having regard for the factors then affecting peace and security in the North Atlantic area, including the development of universal as well as regional arrangements under the Charter of the United Nations for the maintenance of international peace and security.

Article 13

After the Treaty has been in force for twenty years, any Party may cease to be a party one year after its notice of denunciation has been given to the Government of the United States of America, which will inform the Governments of the other Parties of the deposit of each notice of denunciation.

Article 14

This Treaty, of which the English and French texts are equally authentic, shall be deposited in the archives of the Government of the United States of America. Duly certified copies thereof will be transmitted by that Government to the Governments of the other signatories.

Tripartite Security Treaty

(United States, Australia, New Zealand)

Major provisions of the Tripartite agreement signed on Sept. 1, 1951, at San Francisco:

1. The parties undertake to settle by peaceful means any international disputes in which they may be involved.

2. The parties will maintain and develop their individual and collective capacity to resist armed attack.

3. The parties will consult together whenever the territorial integrity, political

independence or security of any of the parties is threatened in the Pacific.

4. Each party recognizes that an armed attack in the Pacific area on either of the other parties would be dangerous to its own peace and safety.

5. The parties hereby establish a council, consisting of their foreign ministers or their deputies, to consider matters concerning the implementation of this treaty.

6. This treaty shall remain in force indefinitely.

A Defense Treaty similar in its provisions to the Tripartite Security Treaty was signed by the United States and the Philippines in Washington, D. C., Aug 30, 1951.

United States–Japanese Treaty

Main provisions of the U. S.-Japanese Security Treaty signed at San Francisco on Sept. 8, 1951:

1. Japan grants and the U. S. accepts the right to dispose U. S. land, air and sea forces in and about Japan. Such forces may be utilized to contribute to the maintenance of international peace and security in the Far East and to the security of Japan against armed attack from without, including assistance given at the express request of the Japanese government to put down large scale riots and disturbances in Japan caused through instigation or intervention by an outside power or powers.

2. Japan will not grant without the prior consent of the U. S. any bases or any rights, powers or authority whatsoever relating to bases, or the right of garrison or maneuver or transit of ground, air or naval forces of any third power.

3. This treaty shall expire whenever in the opinion of the governments of the U. S. and of Japan, U. N. arrangements or alternate individual or collective dispositions satisfactorily provide for the maintenance of international peace and security in the Japan area.

Japanese Peace Treaty

The Japanese Peace Treaty was signed at San Francisco on September 8, 1951, by 49 nations; the U.S.S.R., Poland and Czechoslovakia were present but refused to sign. Among the major provisions of the treaty are the following:

Peace: The state of war between Japan and the Allies is terminated.

Sovereignty: Japan's full sovereignty is recognized as is its right to apply for U. N. membership.

Territory: Japan recognizes the independence of Korea; renounces all rights, titles or claims to Formosa, the Pescadores, the Kuriles, Sakhalin, the Pacific islands formerly under mandate to Japan, the Antarctic area, Spratly Island and the Paracels.

Japan agrees to U. N. trusteeship over the Ryukyu and Daito Islands, the Bonins, Rosario Island, the Volcano Islands, Parece Vela and Marcus Island. Disposition of Japanese property on these islands is to be negotiated by Japan and the administering authorities.

Security: Japan agrees to settle its international disputes peaceably, to refrain from the threat of or the use of force and to abide by the principles of the U. N.

All occupation forces are to be withdrawn as soon as possible but not later than 90 days after a majority of the signatory countries have given notice of ratification of this treaty. Nothing in this provision shall, however, prevent the stationing or retention of foreign armed forces in Japanese territory by agreement with one or more of the Allies.

Political-Economic Clauses: Japan may enter into fisheries treaties; may negotiate most-favored-nation trade and maritime treaties with the Allies; renounces all special rights and interests in China.

Japan accepts the judgments of the International Military Tribunal and Allied War Crimes Courts.

Claims and Property: Japan recognizes its responsibility to pay reparations but the Allies recognize its limited economic capacity; therefore, Japan shall pay through goods to be manufactured in Japan from raw materials provided by the victimized nations and by services. The Allies may retain certain properties seized from Japan but require the latter to return their properties within 6 months. Japan recognizes Allied industrial, literary and artistic property rights. It agrees to indemnify prisoners of war who suffered unduly but renounces similar claims against the Allies.

Settlement of Disputes: Any disagreements arising out of the interpretation of this treaty and not otherwise settled shall be submitted to the International Court of Justice.

THE DECLARATION OF INDEPENDENCE

In CONGRESS, July 4, 1776

The unanimous Declaration of the thirteen united States of America.

When in the Course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.—That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed,—That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security.—Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

He has refused his Assent to Laws, the most wholesome and necessary for the public good.

He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their Pubic Records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the Legislative Powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the mean time exposed to all the dangers of invasion from without, and convulsions within.

NOTE: On April 12, 1776, the legislature of North Carolina authorized its delegates to the Continental Congress to join with others in a declaration of separation from Great Britain; the first colony to instruct its delegates to take the actual initiative was Virginia on May 15. On June 7, 1776, Richard Henry Lee of Virginia offered a resolution to the Congress to the effect "that these United Colonies are, and of right ought to be, free and independent States. . . ." A committee, consisting of Thomas Jefferson, John Adams, Benjamin Franklin, Robert R. Livingston and Roger Sherman was organized to "prepare a declaration to the effect of the said first resolution." The Declaration of Independence was adopted on July 4, 1776.

Most delegates signed the Declaration August 2, but George Wythe (Va.) signed August 27; Richard Henry Lee (Va.), Elbridge Gerry (Mass.) and Oliver Wolcott (Conn.) in September; Matthew Thornton (N. H.), not a delegate until September, in November; and Thomas McKean (Del.), although present on July 4, not until 1781 by special permission, having served in the army in the interim.

He has endeavoured to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary Powers.

He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of New Offices, and sent hither swarms of Officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, Standing Armies without the Consent of our legislatures.

He has affected to render the Military independent of and superior to the Civil Power.

He has combined with others to subject us to a jurisidiction foreign to our constitution, and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation:

For quartering large bodies of armed troops among us:

For protecting them, by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States:

For cutting off our Trade with all parts of the world:

For imposing Taxes on us without our Consent:

For depriving us in many cases, of the benefits of Trial by Jury:

For transporting us beyond Seas to be tried for pretended offences:

For abolishing the free System of English Laws in a neighbouring Province, establishing therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies:

For taking away our Charters, abolishing our most valuable Laws and altering fundamentally the Forms of our Governments:

For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated Government here, by declaring us out of his Protection and waging War against us.

He has plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people.

He is at this time transporting large Armies of foreign Mercenaries to compleat the works of death, desolation and tyranny, already begun with circumstances of Cruelty & Perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the Head of a civilized nation.

He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the executioners of their friends and Brethren, or to fall themselves by their Hands.

He has excited domestic insurrections amongst us, and has endeavoured to bring on the inhabitants of our frontiers, the merciless Indian Savages, whose known rule of warfare, is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these Oppressions We have Petitioned for Redress in the most humble terms: Our repeated Petitions have been answered only by repeated injury. A Prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people.

Nor have We been wanting in attentions to our Brittish brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.

We, therefore, the Representatives of the united States of America, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by Authority of the good People of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be

FREE AND INDEPENDENT STATES; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as Free and Independent States, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do.—And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes and our sacred Honor.

JOHN HANCOCK.

New Hampshire.
Josiah Bartlett,
Wm. Whipple,
Matthew Thornton.

Rhode Island.
Step. Hopkins,
William Ellery.

Connecticut.
Roger Sherman,
Sam'el Huntington,
Wm. Williams,
Oliver Wolcott.

New York.
Wm. Floyd,
Phil. Livingston,
Frans. Lewis,
Lewis Morris.

New Jersey.
Richd. Stockton,
Jno. Witherspoon,
Fras. Hopkinson,
John Hart,
Abra. Clark.

Pennsylvania.
Robt. Morris,
Benjamin Rush,
Benja. Franklin,
John Morton,
Geo. Clymer,
Jas. Smith,
Geo. Taylor,
James Wilson,
Geo. Ross.

Massachusetts-Bay.
Saml. Adams,
John Adams,
Robt. Treat Paine,
Elbridge Gerry.

Delaware.
Caesar Rodney,
Geo. Read,
Tho. M'Kean.

Maryland.
Samuel Chase,
Wm. Paca,
Thos. Stone,
Charles Carroll of Carrollton.

Virginia.
George Wythe,
Richard Henry Lee,
Th. Jefferson,
Benja. Harrison,
Ths. Nelson, Jr.,
Francis Lightfoot Lee,
Carter Braxton.

North Carolina.
Wm. Hooper,
Joseph Hewes,
John Penn.

South Carolina.
Edward Rutledge,
Thos. Heyward, Junr.,
Thomas Lynch, Junr.,
Arthur Middleton.

Georgia.
Button Gwinnett,
Lyman Hall,
Geo. Walton.

IN CONGRESS

JANUARY, 18, 1777.

Ordered:

That an authenticated copy of the Declaration of Independency, with the names of the Members of Congress subscribing the same, be sent to each of the United States, and that they be desired to have the same put on record.

By order of Congress.

Attest, CHAS. THOMSON, *Secy.* A true copy. JOHN HANCOCK, *Presidt.*

The Statue of Liberty

The Statue of Liberty ("Liberty Enlightening the World") is a 225-ton copper female figure, 152 ft. 5 in. in height, facing the ocean from Bedloe's Island in New York Harbor. The right hand holds aloft a torch, and the left hand carries a tablet upon which is inscribed: "July 4, 1776."

The statue was designed by Frédéric Auguste Bartholdi, at the request of the French government, as a present to the U. S. to commemorate the centennial of American independence. It cost $450,000.

The pedestal, 151 ft. 1 in. in height, was erected by the U. S., and its cost of $350,000 was met by popular subscription in this country. The cornerstone was laid Aug. 5, 1884, and the unveiling of the statue took place Oct. 28, 1886.

On a tablet inside the main entrance of the pedestal is engraved the following sonnet, written by Emma Lazarus:

The New Colossus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon hand
Glows world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door."

CONSTITUTION
of the UNITED STATES OF AMERICA

The oldest federal constitution in existence was framed by a convention of delegates from twelve of the thirteen original states in Philadelphia in May 1787, Rhode Island failing to send a delegate. George Washington presided over the session, which lasted until September 17, 1787. The draft (originally a preamble and seven Articles) was submitted to all thirteen states and was to become effective when ratified by nine states. It went into effect on the first Wednesday in March 1789, having been ratified by New Hampshire, the ninth state to approve, on June 21, 1788. The states ratified the Constitution in the following order:

Delaware	December 7, 1787	South Carolina	May 23, 1788
Pennsylvania	December 12, 1787	New Hampshire	June 21, 1788
New Jersey	December 18, 1787	Virginia	June 25, 1788
Georgia	January 2, 1788	New York	July 26, 1788
Connecticut	January 9, 1788	North Carolina	November 21, 1789
Massachusetts	February 6, 1788	Rhode Island	May 29, 1790
Maryland	April 28, 1788		

Outline of the Constitution

ARTICLE I

Sec. 1. Legislative powers; in whom vested.

Sec. 2. House of Representatives, how and by whom chosen—Qualifications of a Representative—Representatives and direct taxes, how apportioned—Enumeration—Vacancies to be filled—Power of choosing officers, and of impeachment.

Sec. 3. Senators, how and by whom chosen—How classified—State Executive, when to make temporary appointments, in case, etc.—Qualifications of a Senator—President of the Senate, his right to vote—President pro tem., and other officers of the Senate, how chosen—Power to try impeachments—When President is tried, Chief Justice to preside—Sentence.

Sec. 4. Times, etc., of holding elections, how prescribed—At least one Session in each year.

Sec. 5. Membership—Quorum—Adjournments—Rules—Power to punish or expel—Journal—Time of adjournments, how limited, etc.

Sec. 6. Compensation—Privileges—Disqualification in certain cases.

Sec. 7. House to originate all revenue bills—Veto—Bill may be passed by two-thirds of each house, notwithstanding, etc.—Bill, not returned in ten days, to become a law—Provisions as to orders, concurrent resolutions, etc.

Sec. 8. Powers of Congress.

Sec. 9. Provision as to migration or importation of certain persons—Habeas Corpus—Bills of attainder, etc.—Taxes, how apportioned—No export duty—No commercial preference—Money, how drawn from treasury, etc.—No titular nobility—Officers not to receive presents, etc.

Sec. 10. States prohibited from the exercise of certain powers.

ARTICLE II

Sec. 1. President; his term of office—Electors of President; number and how appointed—Electors to vote on same day—Qualification of President—On whom his duties devolve in case of his removal, death, etc.—President's compensation—His oath of office.

Sec. 2. President to be commander in chief—He may require opinions of Cabinet Officers, etc., may pardon—Treaty-making power—Nomination of certain officers—When President may fill vacancies.

Sec. 3. President shall communicate to Congress—He may convene and adjourn Congress, in case of disagreement, etc.—Shall receive ambassadors, execute laws, and commission officers.

Sec. 4. All civil offices forfeited for certain crimes.

ARTICLE III

Sec. 1. Judicial powers—Tenure—Compensation.

Sec. 2. Judicial power; to what cases it extends—Original jurisdiction of Supreme Court—Appellate—Trial by jury, etc.—Trial, where.

Sec. 3. Treason defined—Proof of—Punishment of.

ARTICLE IV

Sec. 1. Each State to give credit to the public acts, etc., of every other State.

Sec. 2. Privileges of citizens of each State—Fugitives from justice to be delivered up—Persons held to service having escaped, to be delivered up.

Sec. 3. Admission of new States—Power of Congress over territory and other property.

Sec. 4. Republican form of government guaranteed—Each State to be protected.

ARTICLE V

Constitution; how amended—Proviso.

ARTICLE VI

Certain debts, etc., declared valid—Supremacy of Constitution, treaties, and laws of the United States—Oath to support Constitution, by whom taken—No religious test.

ARTICLE VII

What ratification shall establish Constitution.

AMENDMENTS

I. Religious establishment prohibited—Freedom of speech, of the press, and right to petition.

II. Right to keep and bear arms.

III. No soldier to be quartered in any house, unless, etc.

IV. Right of search and seizure regulated.

V. Provisions concerning prosecution, trial and punishment—Private property not to be taken for public use, without compensation.

VI. Further provision respecting criminal prosecutions.

VII. Right of trial by jury secured.

VIII. Excessive bail or fines and cruel punishments prohibited.

IX. Rule of construction of Constitution.

X. Same subject; rights of States.

XI. Same subject; judicial powers construed.

XII. Manner of choosing President and Vice President.

XIII. Slavery abolished.

XIV. Citizenship; representation—Public debt.

XV. Right of suffrage—By whom exercised.

XVI. Taxes on incomes.

XVII. Election of Senators—Filling of vacancies.

XVIII. Prohibition.

XIX. Suffrage; not to be denied because of sex.

XX. Commencement of terms of President, Vice President and members of Congress; time of assembling of Congress.

XXI. Repeal of Prohibition.

XXII. No person to serve as President for more than two terms.

The Constitution of the United States of America

PREAMBLE.—WE THE PEOPLE of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I

Section 1

Legislative powers vested in Congress.—All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2

Composition of the House of Representatives.—1. The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Qualifications of Representatives.—2. No Person shall be a Representative who shall not have attained to the Age of twenty-five Years, and been seven Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Apportionment of Representatives and direct taxes—census.*—3. [Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons.] The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

Filling of vacancies in representation.—4. When vacancies happen in the Representation from any State, the Executive

* The clause included in brackets is amended by the 14th Amendment, Section 2.

Authority thereof shall issue Writs of Election to fill such Vacancies.

Selection of officers; power of impeachment.—5. The House of Representatives shall chuse their Speaker and other Officers; and shall have the sole Power of Impeachment.

Section 3*

The Senate.—[1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six Years; and each Senator shall have one Vote.]

Classification of Senators; filling of vacancies.—2. Immediately after they shall be assembled in Consequence of the first Election, they shall be divided as equally as may be into three Classes. The Seats of the Senators of the first Class shall be vacated at the Expiration of the second Year, of the second Class at the Expiration of the fourth Year, and of the third Class at the Expiration of the sixth Year, so that one-third may be chosen every second Year; and if Vacancies happen by Resignation, or otherwise, during the Recess of the Legislature of any State, the Executive thereof may make temporary Appointments [until the next Meeting of the Legislature, which shall then fill such Vacancies].

Qualification of Senators.—3. No Person shall be a Senator who shall not have attained to the Age of thirty Years, and been nine Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State for which he shall be chosen.

Vice President to be President of Senate.—4. The Vice President of the United States shall be President of the Senate, but shall have no Vote, unless they be equally divided.

Selection of Senate officers; President pro tempore.—5. The Senate shall chuse their other Officers, and also a President pro tempore, in the Absence of the Vice President, or when he shall exercise the Office of President of the United States.

Senate to try impeachments.—6. The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in cases of impeachment.—7. Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and enjoy any Office of honor, Trust, or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Section 4

Control of congressional elections.—1. The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of chusing Senators.

Time for assembling of Congress.†—2. The Congress shall assemble at least once in every Year, and such Meeting shall be on the first Monday in December, unless they shall by Law appoint a different Day.

Section 5

Each house to be the judge of the election and qualifications of its members; regulations as to quorum.—1. Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members, and a Majority of each shall constitute a Quorum to do Business; but a smaller Number may adjourn from day to day, and may be authorized to compel the Attendance of absent Members, in such Manner, and under such Penalties as each House may provide.

Each house to determine its own rules.—2. Each House may determine the Rules of its Proceedings, punish its Members for disorderly Behaviour, and, with the Concurrence of two thirds, expel a Member.

Journals and yeas and nays.—3. Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.

Adjournment.—4. Neither House, during the Session of Congress shall, without the Consent of the other, adjourn for more than three days, nor to any other Place than that in which the two Houses shall be sitting.

Section 6

Compensation and privileges of Members of Congress.—1. The Senators and Representatives shall receive a Compensation for their Services, to be ascertained by Law, and paid out of the Treasury of the United States. They shall in all Cases, except Treason, Felony and Breach of the

* The 1st paragraph of this section and as much of the 2nd paragraph as relates to filling vacancies are amended by the 17th Amendment.
† Amended by the 20th Amendment, Section 2.

Peace, be privileged from Arrest during their Attendance at the Session of their respective Houses, and in going to and returning from the same; and for any Speech or Debate in either House, they shall not be questioned in any other Place.

Incompatible offices; exclusions.—2. No Senator or Representative shall, during the Time for which he was elected, be appointed to any civil Office under the Authority of the United States, which shall have been created, or the Emoluments whereof shall have been encreased during such time; and no Person holding any Office under the United States, shall be a Member of either House during his Continuance in Office.

Section 7

Revenue bills to originate in House.—1. All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills.

Manner of passing bills; veto power of President.—2. Every Bill which shall have passed the House of Representatives and the Senate, shall, before it becomes a Law, be presented to the President of the United States; If he approve he shall sign it, but if not he shall return it, with his Objections to that House in which it shall have originated, who shall enter the Objections at large on their Journal, and proceed to reconsider it. If after such Reconsideration two thirds of that House shall agree to pass the Bill, it shall be sent, together with the Objections, to the other House, by which it shall likewise be reconsidered, and if approved by two thirds of that House, it shall become a Law. But in all such Cases the Votes of both Houses shall be determined by Yeas and Nays, and the Names of the Persons voting for and against the Bill shall be entered on the Journal of each House respectively. If any Bill shall not be returned by the President within ten Days (Sundays excepted) after it shall have been presented to him, the Same shall be a Law, in like Manner as if he had signed it, unless the Congress by their Adjournment prevent its Return, in which Case it shall not be a Law.

Concurrent orders or resolutions, to be passed by President.—3. Every Order, Resolution, or Vote to which the Concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the Same shall take Effect, shall be approved by him, or being disapproved by him, shall be repassed by two thirds of the Senate and House of Representatives, according to the Rules and Limitations prescribed in the Case of a Bill.

Section 8

General powers of Congress.*

The Congress shall have Power.—1. To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

Borrowing of money.—2. To borrow Money on the credit of the United States;

Regulation of commerce.—3. To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

Naturalization and bankruptcy.—4. To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

Money, weights and measures.—5. To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

Counterfeiting.—6. To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

Post offices.—7. To establish Post Offices and post Roads;

Patents and copyrights.—8. To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

Inferior courts.—9. To constitute Tribunals inferior to the supreme Court;

Piracies and felonies.—10. To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;

War; marque and reprisal.—11. To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;

Armies.—12. To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

Navy.—13. To provide and maintain a Navy;

Land and naval forces.—14. To make Rules for the Government and Regulation of the land and naval Forces;

Calling out militia.—15. To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;

Organizing, arming and disciplining militia.—16. To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be

* By the 16th Amendment, Congress is given the power to lay and collect taxes on incomes.

employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

Exclusive legislation over District of Columbia.—17. To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards, and other needful Buildings;—And

To enact laws necessary to enforce Constitution.—18. To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

Section 9

Migration or importation of certain persons not to be prohibited before 1808.—1. The Migration or Importation of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a Tax or duty may be imposed on such Importation, not exceeding ten dollars for each Person.

Writ of habeas corpus not to be suspended; exception.—2. The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.

Bills of attainder and ex post facto laws prohibited.—3. No Bill of Attainder or ex post facto Law shall be passed.

Capitation and other direct taxes.—4. No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken.*

Exports not to be taxed.—5. No Tax or Duty shall be laid on Articles exported from any State.

No preference to be given to ports of any State; interstate shipping.—6. No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.

Money, how drawn from treasury; financial statements to be published.—7. No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

Titles of nobility not to be granted; acceptance by government officers of favors from foreign powers.—8. No Title of Nobility shall be granted by the United States: And no Person holding any Office of Profit or Trust under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever, from any King, Prince, or foreign State.

Section 10

Limitations of the powers of the several States.—1. No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility.

State imposts and duties.—2. No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing its inspection Laws: and the net Produce of all Duties and Imposts, laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Control of the Congress.

Further restrictions on powers of States.—3. No State shall, without the Consent of Congress, lay any Duty of Tonnage, keep Troops, or Ships of War in time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.

ARTICLE II

Section 1

The President; the executive power.—1. The executive Power shall be vested in a President of the United States of America. He shall hold his Office during the Term of four Years, and, together with the Vice President, chosen for the same Term, be elected, as follows

Appointment and qualifications of presidential electors.—2. Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and

* See the 16th Amendment.

Representatives to which the State may be entitled in the Congress: but no Senator or Representative, or Person holding an Office of Trust or Profit under the United States, shall be appointed an Elector.

Original method of electing the President and Vice-President.*—[The Electors shall meet in their respective States, and vote by Ballot for two Persons, of whom one at least shall not be an Inhabitant of the same State with themselves. And they shall make a List of all the Persons voted for, and of the Number of Votes for each; which List they shall sign and certify, and transmit sealed to the Seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the Presence of the Senate and House of Representatives, open all the Certificates, and the Votes shall then be counted. The Person having the greatest Number of Votes shall be the President, if such Number be a Majority of the whole Number of Electors appointed; and if there be more than one who have such Majority, and have an equal Number of Votes, then the House of Representatives shall immediately chuse by Ballot one of them for President; and if no person have a Majority, then from the five highest on the List the said House shall in like Manner chuse the President. But in chusing the President, the Votes shall be taken by States, the Representation from each State having one Vote; A quorum for this Purpose shall consist of a Member or Members from two thirds of the States, and a Majority of all the States shall be necessary to a Choice. In every Case, after the Choice of the President, the Person having the greatest Number of Votes of the Electors shall be the Vice President. But if there should remain two or more who have equal Votes, the Senate should chuse from them by Ballot the Vice President.]

Congress may determine time of choosing electors and day for casting their votes.—3. The Congress may determine the Time of chusing the Electors, and the Day on which they shall give their Votes; which Day shall be the same throughout the United States.

Qualifications for the office of President.†—4. No Person except a natural born Citizen, or a Citizen of the United States, at the time of the Adoption of this Constitution, shall be eligible to the Office of President; neither shall any Person be eligible to that Office who shall not have attained to the Age of thirty five Years, and been fourteen Years a Resident within the United States.

Filling vacancy in the office of President.‡—5. In Case of the Removal of the President from Office, or of his Death, Resignation, or Inability to discharge the Powers and Duties of the said Office, the same shall devolve on the Vice President, and the Congress may by Law provide for the Case of Removal, Death, Resignation or Inability, both of the President and Vice President, declaring what Officer shall then act as President, and such Officer shall act accordingly, until the Disability be removed, or a President shall be elected.

Compensation of the President.—6. The President shall, at stated Times, receive for his Services, a Compensation, which shall neither be encreased nor diminished during the Period for which he shall have been elected, and he shall not receive within that Period any other Emolument from the United States, or any of them.

Oath to be taken by the President.—7. Before he enter on the Execution of his Office, he shall take the following Oath or Affirmation:—"I do solemnly swear (or affirm) that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States."

Section 2

The President to be commander-in-chief of army and navy and head of executive departments; may grant reprieves and pardons.—1. The President shall be Commander in Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States; he may require the Opinion, in writing, of the principal Officer in each of the executive Departments, upon any subject relating to the Duties of their respective Offices, and he shall have Power to grant Reprieves and Pardons for Offences against the United States, except in Cases of Impeachment.

President may, with concurrence of Senate, make treaties, appoint ambassadors, etc.; appointment of inferior officers, authority of Congress over.—2. He shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law: but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in

* This clause has been superseded by the 12th Amendment.

† For qualifications of the Vice President, see 12th Amendment.

‡ Amended by the 20th Amendment, Sections 3 and 4.

the Courts of Law, or in the Heads of Departments.

President may fill vacancies in office during recess of Senate.—3. The President shall have Power to fill up all Vacancies that may happen during the Recess of the Senate, by granting Commissions which shall expire at the End of their next Session.

Section 3

President to give advice to Congress; may convene or adjourn it on certain occasions; to receive ambassadors, etc.; have laws executed and commission all officers.—He shall from time to time give to the Congress Information of the State of the Union, and recommend to their Consideration such Measures as he shall judge necessary and expedient; he may, on extraordinary Occasions, convene both Houses, or either of them, and in Case of Disagreement between them, with Respect to the Time of Adjournment, he may adjourn them to such Time as he shall think proper; he shall receive Ambassadors and other public Ministers; he shall take Care that the Laws be faithfully executed, and shall Commission all the Officers of the United States.

Section 4

All civil officers removable by impeachment.—1. The President, Vice President and all civil Officers of the United States, shall be removed from Office on Impeachment for, and Conviction of, Treason, Bribery, or other high Crimes and Misdemeanors.

ARTICLE III

Section 1

Judicial powers; how vested; term of office and compensation of judges.—The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish. The Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behaviour, and shall, at stated Times, receive for their Services, a Compensation, which shall not be diminished during their Continuance in Office.

Section 2

Jurisdiction of Federal courts.*—1. The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of Admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States;—between a State and Citizens of another State;—between Citizens of different States,—between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

Original and appellate jurisdiction of Supreme Court.—2. In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

Trial of all crimes, except impeachment, to be by jury.—3. The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

Section 3

Treason defined; conviction of.—1. Treason against the United States, shall consist only in levying War against them, or, in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in open Court.

Congress to declare punishment for treason; proviso.—2. The Congress shall have power to declare the Punishment of Treason, but no Attainder of Treason shall work Corruption of Blood, or Forfeiture except during the Life of the Person attainted.

ARTICLE IV

Section 1

Each State to give full faith and credit to the public acts and records of other States.—Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State. And the Congress may by general Laws prescribe the Manner in which such Acts, Records and Proceedings shall be proved, and the Effect thereof.

Section 2

Privileges of citizens.—1. The Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.

Extradition between the several States.—2. A Person charged in any State with Treason, Felony, or other Crime, who shall flee from Justice, and be found in another State, shall on Demand of the executive

* This section is abridged by the 11th Amendment.

Authority of the State from which he fled, be delivered up, to be removed to the State having Jurisdiction of the Crime.

Persons held to labor or service in one State, fleeing to another, to be returned.* —3. No Person held to Service or Labour in one State, under the Laws thereof, escaping into another, shall, in Consequence of any Law or Regulation therein, be discharged from such Service or Labour, but shall be delivered up on Claim of the Party to whom such Service or Labour may be due.

Section 3

New States.—1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the Jurisdiction of any other State; nor any State be formed by the Junction of two or more States, or Parts of States, without the Consent of the Legislatures of the States concerned as well as of the Congress.

Regulations concerning territory.—2. The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice any Claims of the United States, or of any particular State.

Section 4

Republican form of government and protection guaranteed the several States.—The United States shall guarantee to every State in this Union a Republican Form of Government, and shall protect each of them against Invasion; and on Application of the Legislature, or of the Executive (when the Legislature cannot be convened) against domestic Violence.

ARTICLE V

Ways in which the Constitution can be amended.—The Congress, whenever two thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution, or, on the Application of the Legislatures of two thirds of the several States, shall call a Convention for proposing Amendments, which, in either Case, shall be valid to all Intents and Purposes, as Part of this Constitution, when ratified by the Legislatures of three fourths of the several States, or by Conventions in three fourths thereof, as the one or the other Mode of Ratification may be proposed by the Congress; Provided that no Amendment which may be made prior to the Year One thousand eight hundred and eight shall in any Manner affect the first and fourth Clauses in the Ninth Section of the first Article; and that no State, without its Consent, shall be deprived of its equal Suffrage in the Senate.

ARTICLE VI

Debts contracted under the confederation secured.—1. All Debts contracted and Engagements entered into, before the Adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

Constitution, laws and treaties of the United States to be supreme.—2. This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

Who shall take constitutional oath; no religious test as to official qualification.—3. The Senators and Representatives before mentioned, and the Members of the several State Legislatures, and all executive and judicial Officers, both of the United States and of the several States, shall be bound by Oath or Affirmation, to support this Constitution; but no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States.

ARTICLE VII

Constitution to be considered adopted when ratified by nine States.—The Ratification of the Conventions of nine States shall be sufficient for the Establishment of this Constitution between the States so ratifying the Same.

Done in Convention by the Unanimous Consent of the States present the Seventeenth Day of September in the Year of our Lord one thousand seven hundred and Eighty seven and of the Independence of the United States of America the Twelfth. In witness whereof We have hereunto subscribed our Names.

Go. WASHINGTON
Presidt and Deputy from Virginia

NEW HAMPSHIRE
John Langdon — Nicholas Gilman

MASSACHUSETTS
Nathaniel Gorham — Rufus King

CONNECTICUT
Wm Saml Johnson — Roger Sherman

NEW YORK
Alexander Hamilton

NEW JERSEY
Wil: Livingston — Wm Paterson
David Brearley — Jona: Dayton

PENNSYLVANIA
B Franklin — Thomas Mifflin
Robt Morris — Geo. Clymer
Thos FitzSimons — Jared Ingersoll
James Wilson — Gouv Morris

DELAWARE
Geo: Read — Gunning Bedford Jun
John Dickinson — Richard Bassett
Jaco: Broom

MARYLAND
James McHenry — Dan of St Thos Jenifer
Dani Carroll

* See the 13th Amendment.

VIRGINIA

John Blair — James Madison Jr.

NORTH CAROLINA

Wm Blount Richd Dobbs Spaight
Hu Williamson

SOUTH CAROLINA

J. Rutledge Charles Cotesworth Pinckney
Charles Pinckney Pierce Butler

GEORGIA

William Few Abr Baldwin

Attest: William Jackson, Secretary.

AMENDMENTS TO THE CONSTITUTION OF THE UNITED STATES

(Amendments I to X inclusive, popularly known as the Bill of Rights, were proposed and sent to the states by the first session of the First Congress. They became effective Dec. 15, 1791.)

ARTICLE I

Freedom of religion, speech, of the press, and right of petition.—Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

ARTICLE II

Right of people to bear arms not to be infringed.—A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

ARTICLE III

Quartering of troops.—No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV

Persons and houses to be secure from unreasonable searches and seizures.—The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V

Trials for crimes; just compensation for private property taken for public use.—No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI

Civil rights in trials for crimes enumerated.—In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

ARTICLE VII

Civil rights in civil suits.—In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise reexamined in any Court of the United States, than according to the rules of the common law.

ARTICLE VIII

Excessive bail, fines and punishments prohibited.—Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX

Reserved rights of people.—The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

ARTICLE X

Powers not delegated, reserved to states and people respectively.—The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI

(The proposed amendment was sent to the states Mar. 5, 1794, by the Third Congress. It became effective Jan. 8, 1798.)

Judicial power of United States not to extend to suits against a State.—The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.

ARTICLE XII

(The proposed amendment was sent to the states Dec. 12, 1803, by the Eighth Congress. It became effective Sept. 25, 1804.)

Present mode of electing President and Vice-President by electors.*—The Electors shall meet in their respective states, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the President of the Senate;—The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted;—The person having the greatest number of votes for President, shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest numbers not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by states, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President.—The person having the greatest number of votes as Vice-President, shall be the Vice-President, if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list, the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII

(The proposed amendment was sent to the states Feb. 1, 1865, by the Thirty-eighth Congress. It became effective Dec. 18, 1865.)

Section 1

Slavery prohibited.—Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2

Congress given power to enforce this article.—Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XIV

(The proposed amendment was sent to the states June 16, 1866, by the Thirty-ninth Congress. It became effective July 28, 1868.)

Section 1

Citizenship defined; privileges of citizens.—All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2

Apportionment of Representatives.—Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3

Disqualification for office; removal of disability.—No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall

* Amended by the 20th Amendment, Sections 3 and 4

have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4

Public debt not to be questioned; payment of debts and claims incurred in aid of rebellion forbidden.—The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5

Congress given power to enforce this article.—The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

ARTICLE XV

(The proposed amendment was sent to the states Feb. 27, 1869, by the Fortieth Congress. It became effective Mar. 30, 1870.)

Section 1

Right of certain citizens to vote established.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

Section 2

Congress given power to enforce this article.—The Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XVI

(The proposed amendment was sent to the states July 12, 1909, by the Sixty-first Congress. It became effective Feb. 25, 1913.)

Taxes on income; Congress given power to lay and collect.—The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

ARTICLE XVII

(The proposed amendment was sent to the states May 16, 1912, by the Sixty-second Congress. It became effective May 31, 1913.)

Election of United States Senators; filling of vacancies; qualifications of electors.

1. The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislatures.

2. When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: *Provided,* That the legislature of any State may empower the executive thereof to make temporary appointment until the people fill the vacancies by election as the legislature may direct.

3. This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

ARTICLE XVIII*

(The proposed amendment was sent to the states Dec. 18, 1917, by the Sixty-fifth Congress. It was approved by three-quarters of the states by Jan. 16, 1919, and became effective Jan. 16, 1920.)

Manufacture, sale or transportation of intoxicating liquors, for beverage purposes, prohibited.—1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

Congress and the several States given concurrent power to pass appropriate legislation to enforce this article.—2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

Provisions of article to become operative, when adopted by three-fourths of the States.—3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by Congress.

ARTICLE XIX

(The proposed amendment was sent to the states June 4, 1919, by the Sixty-sixth Congress. It became effective Aug. 26, 1920.)

The right of citizens to vote shall not be denied because of sex.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any States on account of sex.

Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XX

(The proposed amendment, sometimes called the "Lame Duck Amendment," was sent to the states Mar. 3, 1932, by the Seventy-second Congress. It became effective Feb. 6, 1933; but, in accordance with Section 5, Sections 1 and 2 did not go into effect until Oct. 15, 1933.)

* Repealed by the 21st Amendment.

Section 1

Terms of President, Vice-President, Senators and Representatives.—The terms of the President and Vice-President shall end at noon on the twentieth day of January, and the terms of Senators and Representatives at noon on the third day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

Section 2

Time of assembling Congress.—The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the third day of January, unless they shall by law appoint a different day.

Section 3

Filling vacancy in office of President.—If, at the time fixed for the beginning of the term of the President, the President-elect shall have died, the Vice-President-elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President-elect shall have failed to qualify, then the Vice-President-elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President-elect nor a Vice-President-elect shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice-President shall have qualified.

Section 4

Power of Congress in Presidential succession.—The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice-President whenever the right of choice shall have devolved upon them.

Section 5

Time of taking effect.—Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article.

Section 6

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission.

ARTICLE XXI

(The proposed amendment was sent to the states Feb. 20, 1933, by the Seventy-second Congress. It became effective Dec. 5, 1933.)

Section 1

Repeal of Prohibition Amendment.—The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

Section 2

Transportation of intoxicating liquors.—The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

Section 3

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by convention in the several States, as provided in the Constitution, within seven years from the date of the submission thereof to the States by the Congress.

ARTICLE XXII

(The proposed amendment was sent to the states Mar. 21, 1947, by the Eightieth Congress. It became effective Feb. 26, 1951.)

Section 1

Limit to number of terms a President may serve.—No person shall be elected to the office of the President more than twice, and no person who has held the office of President, or acted as President, for more than two years of a term to which some other person was elected President shall be elected to the office of the President more than once. But this Article shall not apply to any person holding the office of President when this Article was proposed by the Congress, and shall not prevent any person who may be holding the office of President, or acting as President, during the term within which this Article becomes operative from holding the office of President or acting as President during the remainder of such term.

Section 2

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission to the States by the Congress.

Lincoln's Gettysburg Address

The Battle of Gettysburg, one of the most noted battles of the Civil War, was fought on July 1, 2, and 3, 1863. On November 19, 1863, the field was dedicated as a national cemetery by President Lincoln in a two-minute speech that was to become immortal. At the time of its delivery the speech was relegated to the inside pages of the papers, while a two-hour address by Edward Everett, the leading orator of the time, caught the headlines.

The following is the text of the address revised by President Lincoln from his own notes:

FOURSCORE and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The Monroe Doctrine

The Monroe Doctrine was announced in President James Monroe's message to Congress, during his second term on December 2, 1823 in part as follows:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

Minority Presidents

Thirteen candidates have become President of the U. S. with a popular vote less than 50 per cent of the total vote cast. It should be noted, however, that in elections before 1872, presidential electors were not chosen by popular vote in all states. Adams' election in 1824 was by the House of Representatives, which chose him over Jackson, who had a plurality of both electoral and popular votes, but not a majority in the electoral college.

Besides Jackson in 1824, only two other candidates receiving the largest popular vote have failed to gain a majority in the electoral college—Samuel J. Tilden (D) in 1876 and Grover Cleveland (D) in 1888.

The "minority" Presidents follow:

Year	President	Electoral Pct.	Popular vote Pct.
1824	John Q. Adams	31.8	29.8
1844	James K. Polk (D)	61.8	49.3
1848	Zachary Taylor (W)	56.2	47.3
1856	James Buchanan (D)	58.7	45.3
1860	Abraham Lincoln (R)	59.4	39.9
1876	Rutherford B. Hayes (R)	50.1	47.9
1880	James A. Garfield (R)	57.9	48.3
1884	Grover Cleveland (D)	54.6	48.8
1888	Benjamin Harrison (R)	58.1	47.8
1892	Grover Cleveland (D)	62.4	46.0
1912	Woodrow Wilson (D)	81.9	41.8
1916	Woodrow Wilson (D)	52.1	49.3
1948	Harry S. Truman (D)	57.1	49.5

The Mayflower Compact

On September 6, 1620, the *Mayflower,* a sailing vessel of about 180 tons, started her memorable voyage from Plymouth, England with about 100* pilgrims aboard, bound for Virginia to establish a private permanent colony in North America. Arriving at Provincetown, Mass., on November 11 (November 21, new style calendar), forty-one of the passengers signed the famous "Mayflower Compact" as the boat lay at anchor in that Cape Cod harbor. A small detail of the pilgrims, led by William Bradford, assigned to select a place for permanent settlement landed at what is now Plymouth, Mass., on December 21, N.S

The text of the compact follows:

IN THE NAME OF GOD, Amen. We, whose names are underwritten, the Loyal Subjects of our dread Sovereign Lord, King *James,* by the Grace of God, of *Great Britain, France* and *Ireland,* King, *Defender of the Faith,* &,

Having undertaken for the Glory of God, and Advancement of the Christian Faith, and the Honour of our King and Country, a voyage to plant the first colony in the northern Parts of Virginia; do by these Presents, solemnly and mutually in the Presence of God and one of another, covenant and combine ourselves together into a civil Body Politick, for our better Ordering and Preservation, and Furtherance of the Ends aforesaid; And by Virtue hereof to enact, constitute, and frame, such just and equal Laws, Ordinances, Acts, Constitutions and Offices, from time to time, as shall be thought most meet and convenient for the General good of the Colony; unto which we promise all due Submission and Obedience.

In WITNESS whereof we have hereunto subscribed our names at *Cape Cod* the eleventh of *November,* in the Reign of our Sovereign Lord, King *James* of *England, France* and *Ireland,* the eighteenth, and of *Scotland* the fifty-fourth. *Anno Domini,* 1620

John Carver
Digery Priest
William Brewster
Edmund Margesson
John Alden
George Soule
James Chilton
Francis Cooke
Joses Fletcher
John Ridgate
Christopher Martin
William Mullins
Thomas English
John Howland
Stephen Hopkins
Edward Winslow
Gilbert Winslow
Miles Standish
Richard Bitteridge
Francis Eaton
John Tilly
John Billington
Thomas Tinker
Samuel Fuller
Richard Clark
John Allerton
Richard Warren
Edward Liester
William Bradford
Thomas Williams
Isaac Allerton
Peter Brown
John Turner
Edward Tilly
John Craxton
Thomas Rogers
John Goodman
Edward Fuller
Richard Gardiner
William White
Edward Doten

* Historians differ as to whether 100, 101, or 102 passengers were aboard.

The Early Congresses

At the urging of Massachusetts and Virginia, the First Continental Congress met in Philadelphia on September 5, 1774, and was attended by representatives of all the colonies except Georgia. Patrick Henry of Virginia declared: "The distinctions between Pennsylvanians, New Yorkers and New Englanders are no more. I am not a Virginian but an American." This Congress, which adjourned October 26, 1774, passed intercolonial resolutions calling for extensive boycott by the colonies against British trade.

The following year, most of the delegates from the colonies were chosen by popular election to attend the Second Continental Congress, which assembled in Philadelphia on May 10. As war had already begun between the colonies and England, the chief problems before the Congress were the procuring of military supplies, the establishment of an army and proper defenses, the issuing of continental bills of credit, etc. On June 15, 1775, George Washington was elected to command the Continental army. Congress adjourned Dec. 12, 1776.

Other Continental Congresses were held in Baltimore (1776–77), Philadelphia (1777), Lancaster, Pa. (1777), York, Pa. (1777–78) and Philadelphia (1778–81).

In 1781, the Articles of Confederation, although establishing a league of the thirteen states rather than a strong central government, provided for the continuance of Congress. Known thereafter as the Congress of the Confederation, it held sessions in Philadelphia (1781–83), Princeton, N. J. (1783), Annapolis, Md. (1783–84) and Trenton, N. J. (1784). Five sessions were held in New York City between the years 1785 and 1789.

The Congress of the United States, established by the ratification of the Constitution, held its first meeting on Mar. 4, 1789, in New York City. Several sessions of Congress were held in Philadelphia, and the first meeting in Washington, D. C., was on Nov. 17, 1800.

Presidents of the Continental Congresses

Name	Elected	Born	Died
Peyton Randolph, Va.	Sept. 5, 1774	c.1721	1775
Henry Middleton, S. C.	Oct. 22, 1774	1717	1784
Peyton Randolph, Va.	May 10, 1775	c.1721	1775
John Hancock, Mass.	May 24, 1775	1737	1793
Henry Laurens, S. C.	Nov. 1, 1777	1724	1792
John Jay, N. Y.	Dec. 10, 1778	1745	1829
Samuel Huntington, Conn.	Sept. 28, 1779	1731	1796
Thomas McKean, Del.	July 10, 1781	1734	1817
John Hanson, Md.	Nov. 5, 1781	1715	1783
Elias Boudinot, N. J.	Nov. 4, 1782	1740	1821
Thomas Mifflin, Pa.	Nov. 3, 1783	1744	1800
Richard Henry Lee, Va.	Nov. 30, 1784	1732	1794
John Hancock, Mass.*	Nov. 23, 1785	1737	1793
Nathaniel Gorham, Mass.	June 6, 1786	1738	1796
Arthur St. Clair, Pa.	Feb. 2, 1787	1734	1818
Cyrus Griffin, Va.	Jan. 22, 1788	1748	1810

* Resigned May 29, 1786, never having served, because of continued illness.

The Star-Spangled Banner

Francis Scott Key, 1814

O say, can you see, by the dawn's early light,
What so proudly we hail'd at the twilight's last gleaming?
Whose broad stripes and bright stars, thro' the perilous fight,
O'er the ramparts we watch'd, were so gallantly streaming?
And the rockets' red glare, the bombs bursting in air,
Gave proof thro' the night that our flag was still there.
O say, does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

On the shore dimly seen thro' the mists of the deep,
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, half conceals, half discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected, now shines on the stream:
'T is the star-spangled banner: O, long may it wave
O'er the land of the free and the home of the brave!

And where is that band who so vauntingly swore
That the havoc of war and the battle's confusion,
A home and a country should leave us no more?
Their blood has wash'd out their foul footsteps' pollution.
No refuge could save the hireling and slave
From the terror of flight or the gloom of the grave:
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave.

O thus be it ever when free-men shall stand
Between their lov'd home and the war's desolation;
Blest with vict'ry and peace, may the heav'n-rescued land
Praise the Pow'r that hath made and preserv'd us a nation!
Then conquer we must, when our cause it is just,
And this be our motto: "In God is our trust!"
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave!

ON SEPTEMBER 13, 1814, Francis Scott Key visited the British fleet in Chesapeake Bay to secure the release of Dr. William Beanes, who had been captured after the burning of Washington, D. C. The release was secured, but Key was detained on ship overnight during the shelling of Fort McHenry, one of the forts defending Baltimore. In the morning, he was so delighted to see the American flag still flying over the fort that he began a poem to commemorate the occasion. Entitled "The Star-Spangled Banner," the poem soon attained wide popularity as sung to the tune "Anacreon in Heaven." The origin of this tune is obscure, but it may have been written by John Stafford Smith, a British composer born in 1750. "The Star-Spangled Banner" was officially made the National Anthem by Congress in 1931, although already adopted as such by the Army and Navy.

History of the Flag

Source: Encyclopaedia Britannica.

THE FIRST OFFICIAL AMERICAN flag, the Continental or Grand Union flag, was displayed on Prospect Hill, Jan. 1, 1776, in the American lines besieging Boston. It had thirteen alternate red and white stripes, with the British Union Jack in the upper left corner.

On June 14, 1777, the Continental Congress adopted the design for a new flag, which actually was the Continental flag with the red cross of St. George and the white cross of St. Andrew replaced on the blue field by thirteen stars, one for each state. No rule was made as to the arrangement of the stars, and while they were usually shown in a circle, there were various other designs. It is uncertain when the new flag was first flown, but its first official announcement is believed to have been on Sept. 3, 1777.

The first public assertion that Betsy Ross made the first Stars and Stripes appeared in a paper read before the Historical Society of Pennsylvania on March 14, 1870, by William J. Canby, a grandson. However, Mr. Canby on later investigation found no official documents of any action by Congress on the flag before June 14, 1777. Betsy Ross' own story, according to her daughter, was that Washington, Robert Morris and George Ross, as representatives of Congress, visited her in Philadelphia in June, 1776, showing her a rough draft of the flag and asking her if she could make one. However, the only actual record of the manufacture of flags by Betsy Ross is a voucher in Harrisburg, Pa., for 14 pounds and some shillings for flags for the Pennsylvania navy.

On Jan. 13, 1794, Congress voted to add two stars and two stripes to the flag in recognition of the admission of Vermont and Kentucky to the Union. By 1818, there were twenty states in the Union, and as it was obvious that the flag would soon become unwieldly, Congress voted April 18 to return to the original thirteen stripes and to indicate the admission of a new state simply by the addition of a star the following July 4. The last two stars were added July 4, 1912, for New Mexico and Arizona.

The first Confederate flag, adopted in 1861 by the Confederate convention in Montgomery, Ala., was called the Stars and Bars; but because of its similarity in colors to the American flag, there was much confusion in the Battle of Bull Run. To remedy this situation, Gen. G. T. Beauregard suggested a battle flag, which was used by the Southern armies throughout the war. The flag consisted of a red field on which was placed a blue cross of St. Andrew separated from the field by a white fillet and adorned with thirteen* white stars for the Confederate states. In May, 1863, at Richmond, an official flag was adopted by the Confederate Congress. This flag was white and twice as long as wide; the union, two-thirds the width of the flag, contained the battle flag designed for Gen. Beauregard. A broad transverse stripe of red was added Feb. 4, 1865, so that the flag might not be mistaken for a signal of truce.

* 11 states formally seceded, and unofficial groups in Kentucky and Missouri adopted ordinances of secession. On this basis, these two states were admitted to the Confederacy, although the official state governments remained in the Union.

Flag Etiquette

(Public Law 829—77th Congress)

JOINT RESOLUTION

To amend Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America."

Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America," be, and the same is hereby amended to read as follows:

That the following codification of existing rules and customs pertaining to the display and use of the flag of the United States of America be, and it is hereby, established for the use of such civilians or civilian groups or organizations as may not be required to conform with regulations promulgated by one or more executive departments of the Government of the United States.

SEC. 2. (*a*) It is the universal custom to display the flag only from sunrise to sunset on buildings and on stationary flagstaffs in the open. However, the flag may be displayed at night upon special occasions when it is desired to produce a patriotic effect.

(*b*) The flag should be hoisted briskly and lowered ceremoniously.

(*c*) The flag should not be displayed on days when the weather is inclement.

(*d*) The flag should be displayed on all days when the weather permits, especially on New Year's Day, January 1; Inauguration Day, January 20; Lincoln's Birthday, February 12; Washington's Birthday, Feb-

ruary 22; Army Day*, April 6; Easter Sunday (variable); Mother's Day, second Sunday in May; Memorial Day (half-staff until noon), May 30; Flag Day, June 14; Independence Day, July 4; Labor Day, first Monday in September; Constitution Day, September 17; Columbus Day, October 12; Navy Day*, October 27; Armistice Day, November 11 †; Thanksgiving Day, fourth Thursday in November; Christmas Day, December 25; such other days as may be proclaimed by the President of the United States; the birthdays of States (dates of admission); and on State holidays.

(*e*) The flag should be displayed daily, weather permitting, on or near the main administration building of every public institution.

(*f*) The flag should be displayed in or near every polling place on election days.

(*g*) The flag should be displayed during school days in or near every schoolhouse.

SEC. 3. That the flag, when carried in a procession with another flag or flags, should be either on the marching right; that is, the flag's own right, or, if there is a line of other flags, in front of the center of that line.

(*a*) The flag should not be displayed on a float in a parade except from a staff, or as provided in subsection (*i*).

(*b*) The flag should not be draped over the hood, top, sides, or back of a vehicle or of a railroad train or a boat. When the flag is displayed on a motorcar, the staff shall be fixed firmly to the chassis or clamped to the radiator cap.

(*c*) No other flag or pennant should be placed above or, if on the same level, to the right of the flag of the United States of America, except during church services conducted by naval chaplains at sea, when the church pennant may be flown above the flag during church services for the personnel of the Navy.

(*d*) The flag of the United States of America, when it is displayed with another flag against a wall from crossed staffs, should be on the right, the flag's own right, and its staff should be in front of the staff of the other flag.

(*e*) The flag of the United States of America should be at the center and at the highest point of the group when a number of flags of States or localities or pennants of societies are grouped and displayed from staffs.

(*f*) When flags of States, cities, or localities, or pennants of societies are flown on the same halyard with the flag of the United States, the latter should always be at the peak. When the flags are flown from adjacent staffs, the flag of the United States should be hoisted first and lowered last. No such flag or pennant may be placed above the flag of the United States or to the right of the flag of the United States.

(*g*) When flags of two or more nations are displayed, they are to be flown from separate staffs of the same height. The flags should be of approximately equal size. International usage forbids the display of the flag of one nation above that of another nation in time of peace.

(*h*) When the flag of the United States is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of a building, the union of the flag should be placed at the peak of the staff unless the flag is at half-staff. When the flag is suspended over a sidewalk from a rope extending from a house to a pole at the edge of the sidewalk, the flag should be hoisted out, union first, from the building.

(*i*) When the flag is displayed otherwise than by being flown from a staff, it should be displayed flat, whether indoors or out, or so suspended that its folds fall as free as though the flag were staffed.

(*j*) When the flag is displayed over the middle of the street, it should be suspended vertically with the union to the north in an east and west street or to the east in a north and south street.

(*k*) When used on a speaker's platform, the flag, if displayed flat, should be displayed above and behind the speaker. When displayed from a staff in a church or public auditorium, if it is displayed in the chancel of a church, or on the speaker's platform in a public auditorium, the flag should occupy the position of honor and be placed at the clergyman's or speaker's right as he faces the congregation or audience. Any other flag so displayed in the chancel or on the platform should be placed at the clergyman's or speaker's left as he faces the congregation or audience. But when the flag is displayed from a staff in a church or public auditorium elsewhere than in the chancel or on the platform it shall be placed in the position of honor at the right of the congregation or audience as they face the chancel or platform. Any other flag so displayed should be placed on the left of the congregation or audience as they face the chancel or platform.

(*l*) The flag should form a distinctive feature of the ceremony of unveiling a statue or monument, but it should never be used as the covering for the statue or monument.

(*m*) The flag, when flown at half-staff, should be first hoisted to the peak for an instant and then lowered to the half-staff position. The flag should be again raised to the peak before it is lowered for the day. By "half-staff" is meant lowering the flag to one-half the distance between the top and bottom of the staff. Crepe streamers may be affixed to spearheads or flag-staffs in a parade only by order of the President of the United States.

* In 1949, Army Day and Navy Day were abandoned; Armed Forces Day is celebrated the 3rd Saturday of May. † In 1954, changed to Veterans Day.

(*n*) When the flag is used to cover a casket, it should be so placed that the union is at the head and over the left shoulder. The flag should not be lowered into the grave or allowed to touch the ground.

SEC. 4. That no disrespect should be shown to the flag of the United States of America, the flag should not be dipped to any person or thing. Regimental colors, State flags, and organization or institutional flags are to be dipped as a mark of honor.

(*a*) The flag should never be displayed with the union down save as a signal of dire distress.

(*b*) The flag should never touch anything beneath it, such as the ground, the floor, water, or merchandise.

(*c*) The flag should never be carried flat or horizontally, but always aloft and free.

(*d*) The flag should never be used as drapery of any sort whatsoever, never festooned, drawn back, nor up, in folds, but always allowed to fall free. Bunting of blue, white, and red, always arranged with the blue above, the white in the middle, and the red below, should be used for covering a speaker's desk, draping the front of a platform, and for decoration in general.

(*e*) The flag should never be fastened, displayed, used, or stored in such a manner as will permit it to be easily torn, soiled, or damaged in any way.

(*f*) The flag should never be used as a covering for a ceiling.

(*g*) The flag should never have placed upon it, nor on any part of it, nor attached to it any mark, insignia, letter, word, figure, design, picture, or drawing of any nature.

(*h*) The flag should never be used as a receptacle for receiving, holding, carrying, or delivering anything.

(*i*) The flag should never be used for advertising purposes in any manner whatsoever. It should not be embroidered on such articles as cushions or handkerchiefs and the like, printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discard; or used as any portion of a costume or athletic uniform. Advertising signs should not be fastened to a staff or halyard from which the flag is flown.

(*j*) The flag, when it is in such condition that it is no longer a fitting emblem for display, should be destroyed in a dignified way, preferably by burning.

SEC. 5. That during the ceremony of hoisting or lowering the flag or when the flag is passing in a parade or in a review, all persons present should face the flag, stand at attention, and salute. Those present in uniform should render the military salute. When not in uniform, men should remove the headdress with the right hand holding it at the left shoulder, the hand being over the heart. Men without hats should salute in the same manner. Aliens should stand at attention. Women should salute by placing the right hand over the heart. The salute to the flag in the moving column should be rendered at the moment the flag passes.

SEC. 6. That when the national anthem is played and the flag is not displayed, all present should stand and face toward the music. Those in uniform should salute at the first note of the anthem, retaining this position until the last note. All others should stand at attention, men removing the headdress. When the flag is displayed, all present should face the flag and salute.

SEC. 7. That the pledge of allegiance† to the flag, "I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation, under God,‡ indivisible, with liberty and justice for all," be rendered by standing with the right hand over the heart. However, civilians will always show full respect to the flag when the pledge is given by merely standing at attention, men removing the headdress. Persons in uniform shall render the military salute.

SEC. 8. Any rule or custom pertaining to the display of the flag of the United States of America, set forth herein, may be altered, modified, or repealed, or additional rules with respect thereto may be prescribed, by the Commander-in-Chief of the Army and Navy of the United States, whenever he deems it to be appropriate or desirable; and any such alteration or additional rule shall be set forth in a proclamation.

Approved, December 22, 1942.

The American's Creed*

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies."

* William Tyler Page, Clerk of the United States House of Representatives, wrote "The American's Creed" in 1917. It was accepted by the House of Representatives on behalf of the American people on April 3, 1918.

† Written by Francis Bellamy in August, 1892, of the staff of *The Youth's Companion* in Boston, at the suggestion of James B. Upham, one of the editors. ‡ The phrase "under God" was added to the pledge on June 14, 1954.

SCIENCE

★

MEASURES AND WEIGHTS

UNITS OF LENGTH

Metric System

The meter was originally intended to be one ten-millionth of the earth's quadrant, a quadrant being one-quarter of a circumference. However, because of the difficulty of determining such a length with accuracy, this definition was abandoned. The meter is now considered to be the distance at 0°C between two microscopic marks on the International Prototype Meter, a platinum-iridium bar, kept by the International Bureau of Weights and Measures at Sèvres, France, a suburb of Paris.

In 1927, the International Conference on Weights and Measures adopted a secondary definition of the meter in terms of light-waves. According to this definition, one meter is equivalent to 1,553,164.13 wave lengths of the red light from cadmium.

Unit	Comparison	English equivalent
Millimeter (mm)	.001 meter	.0394 inch
Centimeter (cm)	.01 meter	.3937 inch
Decimeter (dm)	.1 meter	3.937 inches
Meter (m)		3.2808 feet
Dekameter (dkm)	10 meters	32.8083 feet
Hectometer (hm)	100 meters	328.0833 feet
Kilometer (km)	1000 meters	.62137 mile

English System

According to legend, the yard was established by Henry I as the distance from the point of his nose to the end of his thumb when his arm was outstretched. The British Imperial Yard was defined in 1878 by the Weights and Measures Act as the distance at 62°F between two fine lines on gold studs sunk in a bronze bar known as the "No. 1 Standard Yard." This is equivalent to .914399 meter. In the United States, the yard is defined in terms of the meter, using as a standard the U. S. Prototype Meter. According to this definition, the yard is 3600/3937 (or .914402) meter, slightly longer than the British Imperial Yard.

Unit	Comparison	Metric equivalent
Inch (in.)		25.4001 millimeters
Foot (ft)	12 inches	.3048 meter
Yard (yd)	36 inches 3 feet	.9144 meter
Rod (rd)	16½ feet 5½ yards	5.0292 meters
Furlong (fur.)	660 feet 220 yards 40 rods	201.1684 meters
Mile (mi)*	5280 feet 1760 yards 320 rods 8 furlongs	1.6093 kilometers

* Known as statute mile. See nautical mile under Miscellaneous Units.

UNITS OF AREA

Metric System

Unit	Comparison	English equivalent
Square millimeter (mm^2)	.000001 m^2	.0015 sq in.
Square centimeter (cm^2)	.0001 m^2	.155 sq in.
Square decimeter (dm^2)	.01 m^2	15.5 sq in.
Square meter (m^2)*		10.7639 sq ft
Square dekameter (dkm^2)†	100 m^2	3.9537 sq rd
Square hectometer (hm^2)‡	10,000 m^2	2.471 acres
Square kilometer (km^2)	1,000,000 m^2	.3861 sq mi

* Also known as a centare (ca).
† Also known as an are (a).
‡ Also known as a hectare (ha).

English System

Unit	Comparison	Metric equivalent
Square inch (sq in.)		6.4516 cm^2
Square foot (sq ft)	144 sq in.	.0929 m^2
Square yard (sq yd)	1296 sq in. 9 sq ft	.8361 m^2
Square rod (sq rd)	272¼ sq ft 30¼ sq yds	25.293 m^2
Acre	43,560 sq ft 4,840 sq yd 160 sq rd	.4047 ha
Square mile (sq mi)	27,878,400 sq ft 3,097,600 sq yd 102,400 sq rd 640 acres	2.5900 km^2

UNITS OF VOLUME

Metric System

Unit	Comparison	English equivalent
Cubic millimeter (mm^3)	.000000001 m^3	.00006 cu in.
Cubic centimeter (cm^3)	.000001 m^3	.061 cu in.
Cubic decimeter (dm^3)	.001 m^3	61.0234 cu in.
Cubic meter (m^3)*		35.3145 cu ft

* Also known as a stere (s).

English System

Unit	Comparison	Metric equivalent
Cubic inch (cu in.)		16.3872 cm^3
Cubic foot (cu ft)	1728 cu in.	.0283 m^3
Cubic yard (cu yd)	46,656 cu in. 27 cu ft	.7646 m^3
Cord (cd)	128 cu ft	3.6246 m^3

UNITS OF WEIGHT OR MASS

The term *mass* denotes the amount of matter contained in an object, while the term *weight* denotes the gravitational pull of the earth on the object. For practical purposes, the two terms are synonymous.

Metric System

The gram was originally intended to be equal to the mass of one cubic centimeter of pure water at 4°C. However, because of the difficulty of making exact measurement, a small error was made; and it has since been found that a kilogram of pure water occupies 1.000028 cubic decimeters. The standard for the kilogram is a platinum-iridium cylinder, called the International Prototype Kilogram, which is kept at the International Bureau of Weights and Measures in France.

Unit	Comparison	English equivalents Avdp.	Troy	Apoth.
Milligram (mg)	.001 gram	.0154 grain	.0154 grain	.0154 grain
Centigram (cg)	.01 gram	.1543 grain	.1543 grain	.1543 grain
Decigram (dg)	.1 gram	1.5432 grains	1.5432 grains	1.5432 grains
Gram (g)		.0353 ounce	.0322 ounce	.0322 ounce
Dekagram (dkg)	10 grams	.3527 ounce	.3215 ounce	.3215 ounce
Hectogram (hg)	100 grams	3.5274 ounces	3.2151 ounces	3.2151 ounces
Kiltogram (kg)	1000 grams	2.2046 pounds	2.6792 pounds	2.6792 pounds
Meric ton (t)	1000 kg	1.1023 tons *		

* Short tons. A metric ton is equivalent to .9842 long ton.

English System

The English System is complicated by the existence of three different kinds of weight: *avoirdupois weight,* used for common purposes; *troy weight,* used for weighing gold, silver, etc.; and *apothecaries weight,* used for making up medical prescriptions.

The British Imperial Pound (avoirdupois) is defined as the mass of a pure platinum cylinder kept by the Standards Department of the Board of Trade. In the United States, the pound (avoirdupois) is defined in terms of the kilogram, using as a standard the U. S. Prototype Kilogram. According to this definition, the pound is equal to .4535924277 kilogram, making it infinitesimally smaller than the British Imperial Pound.

Avoirdupois Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Dram (dr avdp)	27.3438 grains	1.7718 grams
Ounce (oz avdp)	16 drams	28.3495 grams
	437.5 grains	
Pound (lb avdp)	7000 grains	.4536 kilogram
	256 drams	
	16 ounces	
Hundredweight (cwt)*	100 pounds	45.3592 kilograms
Ton (tn)†	2000 pounds	.9072 metric ton

* Known as the short hundredweight, which is in use in the United States and Canada. Great Britain uses the long hundredweight (112 lb or 50.8024 kg).

† Known as the short ton, which is in use in the United States and Canada. Great Britain uses the long ton (2240 lb or 1.01605 metric tons).

Troy Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Pennyweight (dwt)	24 grains	1.5552 grams
Ounce (oz t)	480 grains	31.1035 grams
	20 pennyweights	
Pound (lb t)*	5760 grains	.3732 kilogram
	240 pennyweights	
	12 ounces	

* Declared illegal in Great Britain.

Apothecaries Weight

Grain		.0648 gram
Scruple (s ap or ℈)	20 grains	1.296 grams
Dram (dr ap or ʒ)	60 grains	3.8879 grams
	3 scruples	
Ounce (oz ap or ℥)	480 grains	31.1035 grams
	24 scruples	
	8 drams	
Pound (lb ap)	5760 grains	.3732 kilogram
	288 scruples	
	96 drams	
	12 ounces	

UNITS OF CAPACITY

Metric System

The liter is a secondary unit of capacity defined as the volume occupied by one kilogram of pure water at 4°C. It was intended that the liter should exactly equal one cubic decimeter, but as an error was made in measurement, has since been found to equal 1.000028 cubic decimeters.

Unit	Comparison	English equivalents Liquid	Dry
Milliliter (ml)	.001 liter	.0338 fl oz	.0018 pt
Centiliter (cl)	.01 liter	.3381 fl oz	.0182 pt
Deciliter (dl)	.1 liter	3.3815 fl oz	.1816 pt
Liter (l)		1.0567 qt	.9081 qt
Dekaliter (dkl)	10 liters	2.6418 gal	1.1351 pk
Hectoliter (hl)	100 liters	26.4178 gal	2.8378 bu

English System

In Great Britain, the standard unit of capacity for measuring both liquid and dry commodities is the British Imperial Gallon. It is defined as the volume of ten pounds of pure water at 62°F and contains 277.418 cubic inches. The bushel is defined as eight gallons (2218.192 cubic inches).

In the United States, there are two separate standards. The unit for measuring liquids is the gallon, which is defined as 231 cubic inches; the unit for measuring dry commodities is the bushel, which is defined as 2150.42 cubic inches.

Liquid Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Minim (min or m)*		.0038	.0616 ml
Fluid dram (fl dr)	60 min	.2256	3.6966 ml
Fluid ounce (fl oz)	8 fl dr	1.8047	29.5729 ml
Gill (gi)	32 fl dr 4 fl oz	7.2188	118.292 ml
Pint (pt)	16 fl oz 4 gi	28.875	.4732 liter
Quart (qt)	32 fl oz 8 gi 2 pt	57.75	.9463 liter
Gallon (gal)	32 gi 8 pt 4 qt	231	3.7853 liters

* Approximately one drop.

Dry Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Pint (pt)		33.6003	.5506 liter
Quart (qt)	2 pints	67.2006	1.1012 liters
Peck (pk)	16 pints 8 quarts	537.605	8.8096 liters
Bushel (bu)	64 pints 32 quarts 4 pecks	2150.42	35.2383 liters

UNITS OF CIRCULAR MEASURE

Unit	Comparison
Second (″)	
Minute (′)	60 seconds
Degree (°)	60 minutes
Right angle	90 degrees
Straight angle	180 degrees
Circle	360 degrees

COMMON FORMULAS

Circumference

Circle: $C=\pi d$, in which π is 3.1416 and d the diameter.

Area

Triangle: $A=\frac{ab}{2}$, in which a is the base and b the height.

Square: $A=a^2$, in which a is one of the sides.

Rectangle: $A=ab$, in which a is the base and b the height.

Trapezoid: $A=\frac{h(a+b)}{2}$, in which h is the height, a the longer parallel side, and b the shorter.

Regular pentagon: $A=1.720a^2$, in which a is one of the sides.

Regular hexagon: $A=2.598a^2$, in which a is one of the sides.

Regular octagon: $A=4.828a^2$, in which a is one of the sides.

Circle: $A=\pi r^2$, in which π is 3.1416 and r the radius.

Volume

Cube: $V=a^3$, in which a is one of the edges.

Rectangular prism: $V=abc$, in which a is the length, b the width, and c the depth.

Pyramid: $V=\frac{Ah}{3}$, in which A is the area of the base and h the height.

Cylinder: $V=\pi r^2h$, in which π is 3.1416, r the radius of the base, and h the height.

Cone: $V=\frac{\pi r^2h}{3}$, in which π is 3.1416, r the radius of the base, and h the height.

Sphere: $V=\frac{4\pi r^3}{3}$, in which π is 3.1416 and r the radius.

Miscellaneous

Speed per second acquired by falling body: $v=32t$, in which t is the time in seconds.

Distance in feet traveled by falling body: $d=16t^2$, in which t is the time in seconds.

Speed of sound in feet per second through any given temperature of air:

$$V=\frac{1087\sqrt{273+t}}{16.52}$$

, in which t is the temperature Centigrade.

Cost per hour of operation of electrical device: $C=\frac{Wtc}{1000}$, in which W is the number of watts, t the time in hours, and c the cost per kilowatt-hour.

Conversion of matter into energy (Einstein's Theorem): $E=mc^2$, in which E is the energy in ergs, m the mass of the matter in grams, and c the speed of light in centimeters per second. ($c^2=9\cdot10^{20}$).

Abbreviations

The National Bureau of Standards recommends that the period be omitted after all abbreviations of units unless the abbreviation forms an English word, and that the same abbreviation be used for both singular and plural.

FAHRENHEIT AND CENTIGRADE SCALES

Zero on the Fahrenheit scale represents the temperature produced by the mixing of equal weights of snow and common salt.

Absolute zero is theoretically the lowest possible temperature, the point at which all molecular motion would cease.

	F	C
Boiling point of water	212°	100°
Freezing point of water	32°	0°
Absolute zero	−459.6°	−273.1°

To convert Fahrenheit to Centigrade, subtract 32 and multiply by 5/9.

To convert Centigrade to Fahrenheit, multiply by 9/5 and add 32.

ROMAN NUMERALS

Roman numerals are expressed by letters of the alphabet and are rarely used today except for formality or variety.

There are three basic principles for reading Roman numerals:

1. A letter repeated once or twice repeats its value that many times. (XXX=30, CC=200, etc.).

2. One or more letters placed after another letter of greater value increases the greater value by the amount of the smaller. (VI=6, LXX=70, MCC=1200, etc.).

3. A letter placed before another letter of greater value decreases the greater value by the amount of the smaller. (IV=4, XC=90, CM=900, etc.).

Letter	Value	Letter	Value
I	1	LX	60
II	2	LXX	70
III	3	LXXX	80
IV	4	XC	90
V	5	C	100
VI	6	D	500
VII	7	M	1,000
VIII	8	$\overline{V}$	5,000
IX	9	$\overline{X}$	10,000
X	10	$\overline{L}$	50,000
XX	20	$\overline{C}$	100,000
XXX	30	$\overline{D}$	500,000
XL	40	$\overline{M}$	1,000,000
L	50		

SIMPLE INTEREST FOR $100

To find the interest for any amount of money, move the decimal point of that amount two places to the left and multiply by the figure obtained from the table.

For figuring simple interest, the year is considered to have 360 days.

	1 Day	7 Days	1 Month	3 Months	6 Months	1 Year
2%	$.00556	$.03889	$.16667	$.50000	$1.00000	$2.00000
2½%	.00694	.04861	.20833	.62500	1.25000	2.50000
3%	.00833	.05833	.25000	.75000	1.50000	3.00000
3½%	.00972	.06806	.29167	.87500	1.75000	3.50000
4%	.01111	.07778	.33333	1.00000	2.00000	4.00000
4½%	.01250	.08750	.37500	1.12500	2.25000	4.50000
5%	.01389	.09722	.41667	1.25000	2.50000	5.00000
5½%	.01528	.10694	.45833	1.37500	2.75000	5.50000
6%	.01667	.11667	.50000	1.50000	3.00000	6.00000
6½%	.01806	.12639	.54167	1.62500	3.25000	6.50000
7%	.01944	.13611	.58333	1.75000	3.50000	7.00000
8%	.02222	.15556	.66667	2.00000	4.00000	8.00000
9%	.02500	.17500	.75000	2.25000	4.50000	9.00000
10%	.02778	.19444	.83333	2.50000	5.00000	10.00000

MISCELLANEOUS UNITS

AGATE: Originally a measurement of type size (5½ points). Now equal to 1/14 inch. Used in printing for measuring column length.

ANGSTROM (A or λ): .0001 micron or .0000001 mm. Used for measuring length of light waves.

ASTRONOMICAL UNIT (A.U.): 93,003,000 miles, the average distance of the earth from the sun. Used in astronomy.

BALE: A large bundle of goods. In the U. S., the approximate weight of a bale of cotton is 500 pounds. The weight varies in other countries.

BARREL (bbl): For liquids, 31½ gallons or 7326.5 cubic inches. For dry commodities, except cranberries: 105 dry quarts or 7056 cubic inches. For cranberries: 5826 cubic inches.

BOARD FOOT (fbm): 144 cubic inches (12 in. x 12 in. x 1 in.). Used for lumber.

BOLT: 40 yards. Used for measuring cloth.

CABLE: About 100 fathoms or 600 feet. Used for measuring lengths of cable.

CARAT (c): 200 milligrams or 3.086 grains troy. Originally the weight of a seed of the carob tree in the Mediterranean region. Used for weighing precious stones. Also a measure of the purity of gold alloy, indicating how many parts out of 24 are pure. Eighteen carat gold, for example, is ¾ pure.

CHAIN (ch): a chain 66 feet or one-tenth of a furlong in length, divided into 100 parts called links. One mile is equal to 80 chains. Used in surveying and sometimes called Gunter's chain.

CUBIT: 18 inches or 45.72 cm. Derived from distance between elbow and tip of middle finger.

ELL, ENGLISH: 1¼ yards or 1/32 bolt. Used for measuring cloth.

FATHOM (fath): 6 feet or 1.8288 m. Derived from the distance to which a man can stretch his arms. Used for measuring cables and depths of water.

FREIGHT TON (also called MEASUREMENT TON): 40 cubic feet of merchandise. Used for cargo freight.

GREAT GROSS: 12 gross or 1728.

GROSS: 12 dozen or 144.

HAND: 4 inches or 10.16 cm. Derived from the width of the hand. Used for measuring the height of horses at withers.

HOGSHEAD (hhd): 2 liquid barrels or 14,653 cubic inches.

HORSEPOWER: The power needed to lift 33,000 pounds a distance of one foot in one minute (about 1½ times the power an average horse can exert). Used for measuring the power of steam engines, etc.

KNOT: Not a distance, but the rate of speed of one nautical mile per hour. Used for measuring speed of ships.

LEAGUE: Rather indefinite and varying measure, but usually estimated at 3 miles in English-speaking countries.

LIGHT-YEAR: 5,880,000,000,000 miles, the distance light travels in a year at the rate of 186,272 miles per second. (If an astronomical unit were represented by one inch, a light-year would be represented by about one mile.) Used for measurements in interstellar space.

LINK: One-hundredth of a chain or 7.92 inches. Used in surveying.

MAGNUM: Two-quart bottle. Used for measuring wine, etc.

MICRON (μ): .001 millimeter. Used for scientific measurements.

MIL: .001 inch. Used for measuring size of wire. The area of a cross-section of wire is usually expressed in circular mils, a circular mil being the area of a circle one mil in diameter. A wire one inch in diameter has a cross-section area of one million circular mils.

MILLIMICRON (mμ): .001 micron or .000001 mm. Used for scientific measurements.

NAUTICAL MILE (also called GEOGRAPHICAL or SEA MILE): Equal to a minute or 1/21600 of a great circle of the earth. Length varies in different countries. In Great Britain, it is 6080 feet or 1853.2 meters, and in the United States, it is 6080.2 feet or 1853.248 meters. The International Hydrographic Bureau proposed in 1929 a length of 1852 meters or 6076.097 feet, which has been adopted by several countries.

PARSEC: Approximately 3.26 light-years or 19.2 trillion miles. Term is combination of first syllables of *par*allax and *sec*ond, and distance is that of imaginary star when lines drawn from it to both earth and sun form a maximum angle or parallax of one second (1/3600 degree). Used for measuring interstellar distances.

PI (π): 3.14159265+. The ratio of the circumference of a circle to its diameter. For practical purpose, the value is used to four decimal places: 3.1416.

PICA: ⅙ inch or 12 points. Used in printing for measuring column width, etc.

PIPE: 2 hogsheads. Used for measuring wine and other liquids.

POINT: .013837 (approximately 1/72) inch or 1/12 pica. Used in printing for measuring type size.

QUINTAL: 100,000 grams or 220.46 pounds avoirdupois.

QUIRE: Used for measuring paper. Sometimes 24 sheets but more often 25. There are 20 quires in a ream.

REAM: Used for measuring paper. Sometimes 480 sheets, but more often 500 sheets.

SCORE: 20 units.

SPAN: 9 inches or 22.86 cm. Derived from the distance between the end of the thumb and the end of the little finger when both are outstretched.

STONE: Legally 14 pounds avoirdupois in Great Britain.

TOWNSHIP: U. S. land measurement of almost 36 square miles. The south border is 6 miles long. The east and west borders, also 6 miles long, follow the meridians, making the north border slightly less than six miles long. Used in surveying.

TUN: 252 gallons, but often larger. Used for measuring wine and other liquids.

DECIMAL EQUIVALENTS OF COMMON FRACTIONS

1/2	.5000	1/32	.0313	3/11	.2727	6/11	.5455
1/3	.3333	1/64	.0156	4/5	.8000	7/8	.8750
1/4	.2500	2/3	.6667	4/7	.5714	7/9	.7778
1/5	.2000	2/5	.4000	4/9	.4444	7/10	.7000
1/6	.1667	2/7	.2857	4/11	.3636	7/11	.6364
1/7	.1429	2/9	.2222	5/6	.8333	7/12	.5833
1/8	.1250	2/11	.1818	5/7	.7143	8/9	.8889
1/9	.1111	3/4	.7500	5/8	.6250	8/11	.7273
1/10	.1000	3/5	.6000	5/9	.5556	9/10	.9000
1/11	.0909	3/7	.4286	5/11	.4545	9/11	.8182
1/12	.0833	3/8	.3750	5/12	.4167	10/11	.9091
1/16	.0625	3/10	.3000	6/7	.8571	11/12	.9167

Handy Conversion Factors

To change	To	Multiply by
acres	hectares	.4047
bushels (U. S.)	hectoliters	.3524
centimeters	inches	.3937
cubic feet	cubic meters	.0283
cubic meters	cubic feet	35.3145
cubic meters	cubic yards	1.3079
cubic yards	cubic meters	.7646
feet	meters	.3048
gallons (U. S.)	liters	3.7853
grains	grams	.0648
grams	grains	15.4324
grams	ounces avdp.	.0353
hectares	acres	2.4710
hectoliters	bushels (U. S.)	2.8378
inches	millimeters	25.4001
inches	centimeters	2.5400
kilograms	pounds ap or t	2.6792
kilograms	pounds avdp.	2.2046
kilometers	miles	.6214
liters	gallons (U. S.)	.2642
liters	pecks	.1135
liters	pints (dry)	1.8162
liters	pints (liquid)	2.1134
liters	quarts (dry)	.9081
liters	quarts (liquid)	1.0567
meters	feet	3.2808
meters	yards	1.0936
metric tons	tons (long)	.9842
metric tons	tons (short)	1.1023
miles	kilometers	1.6093
millimeters	inches	.0394
ounces avdp.	grams	28.3495
pecks	liters	8.8096
pints (dry)	liters	.5506
pints (liquid)	liters	.4732
pounds ap or t	kilograms	.3732
pounds avdp.	kilograms	.4536
quarts (dry)	liters	1.1012
quarts (liquid)	liters	.9463
square feet	square meters	.0929
square meters	square feet	10.7639
square meters	square yards	1.1960
square yards	square meters	.8361
tons (long)	metric tons	1.0160
tons (short)	metric tons	.9072
yards	meters	.9144

Perfect Squares and Cubes, 1 to 2025

Number	Square root	Cube root	Number	Square root	Cube root
1	1	1	512	..	8
4	2	..	529	23	..
8	..	2	576	24	..
9	3	..	625	25	..
16	4	..	676	26	..
25	5	..	729	27	9
27	..	3	784	28	..
36	6	..	841	29	..
49	7	..	900	30	..
64	8	4	961	31	..
81	9	..	1000	..	10
100	10	..	1024	32	..
121	11	..	1089	33	..
125	..	5	1156	34	..
144	12	..	1225	35	..
169	13	..	1296	36	..
196	14	..	1331	..	11
216	..	6	1369	37	..
225	15	..	1444	38	..
256	16	..	1521	39	..
289	17	..	1600	40	..
324	18	..	1681	41	..
343	..	7	1728	..	12
361	19	..	1764	42	..
400	20	..	1849	43	..
441	21	..	1936	44	..
484	22	..	2025	45	..

Mean and Median

The mean, also called the average, of a series of quantities is obtained by finding the sum of the quantities and dividing it by the number of quantities. In the series 1,3,5,18,19,20,25, the mean or average is 13—i.e., 91 divided by 7.

The median of a series is that point which so divides it that half the quantities are on one side, half on the other. In the above series, the median is 18.

The median often better expresses the common-run, since it is not, as is the mean, affected by an excessively high or low figure. In the series 1,3,4,7,55, the median of 4 is a truer expression of the common-run than is the mean of 14.

Calories and Vitamins of Selected Foods

Source: U. S. Dept. of Agriculture, Agriculture Handbook No. 8 (June, 1950).

Food and (amount)[1]	Energy, calories	Vitamin A value, Int. Units	Thiamine, mg.	Riboflavin, mg.	Niacin, mg.	Ascorbic acid, mg.
Apples (1 medium R)	76	120	.05	.04	.2	6
Bacon: medium fat (2 sl. C)	97	(0)	.08	.05	.8	0
Bananas (1 medium R)	88	430	.04	.05	.7	10
Beans: snap, green (1 cup C[2])	27	830	.09	.12	.6	18
Beef: sirloin[3] (3 oz. C)	257	30	.06	.16	4.1	0
Beets: red, diced (1 cup C)	68	30	.03	.07	.5	11
Bread: rye (1 sl.)	57	0	.04	.02	.4	(0)
Bread: white, enriched[4] (1 sl.)	63	0	.06	.04	.5	(0)
Bread: wholewheat (1 sl.)	55	0	.07	.03	.7	(0)
Butter (1 tbs.)	100	460[5]	...	...	...	(0)
Buttermilk: cultured[6] (1 cup)	86	10	.09	.43	.3	3
Cabbage (1 cup R)	24	80	.06	.05	.3	50
Carrots: diced (1 cup C)	44	18,130	.07	.07	.7	6
Cheese: Swiss (1 oz.)	105	410	trace	(.11)	(trace)	(0)
Cheese: cottage[6] (1 cup)	215	(50)	.04	.69	(.2)	(0)
Chicken: roasters[7] (4 oz. R)	227	460	.09	.18	9.1	(0)
Chocolate: unsweetened (1 oz.)	143	20	.01	.06	.3	(0)
Corn (1 ear C)	84	390[8]	.11	.10	1.4	8
Crackers: graham (2 medium)	55	(0)	.04	.02	.2	(0)
Cream: light (½ pt.)	489	1,980	.07	.34	.2	3
Eggs: poached (1)	77	540	.04	.12	trace	0
Flour: wheat, enriched[9] (1 cup)	401	(0)	.48	.29	3.8	(0)
Grapefruit (½ medium)	75	20	.07	.04	.4	76
Ham: smoked[3] (3 oz. C)	339	(0)	.46	.18	3.5	0
Hamburger (3 oz. C)	316	40	.07	.16	4.1	0
Honey (1 tbs.)	62	(0)	trace	.01	trace	1
Ice cream (1/7 qt. brick)	167	420	.03	.15	.1	1
Lamb: leg roast[3] (3 oz. C)	230	...	.12	.21	4.4	0
Lemons (1 medium)	20	0	.03	trace	.1	31
Liver: calf (3 oz. R)	120	19,130	.18	2.65	13.7	30
Macaroni: enriched (1 cup C)	209	(0)	.24	.15	2.0	(0)
Margarine[10] (1 tbs.)	101	460	...	...	...	(0)
Milk: fluid, whole (1 cup)	166	(390)	.09	.42	.3	3
Molasses: cane, medium (1 tbs.)	46	...	...	.02	.2	...
Oatmeal (1 cup C)	148	(0)	.22	.05	.4	(0)
Oranges (1 medium)	70	(290)	.12	.04	.4	77
Oysters[11] (1 cup R)	200	770	.35	.48	2.8	...
Peaches (1 medium R)	46	880	.02	.05	.9	8
Peanut butter (1 tbs.)	92	0	.02	.02	2.6	(0)
Peanuts: roasted, chopped (1 tbs.)	50	0	.03	.01	1.5	(0)
Peas: green, immature (1 cup C)	111	1,150	.40	.22	3.7	24
Plums (1 R)	29	200	.04	.02	.3	3
Pork: loin[3] (3 oz. C)	284	(0)	.71	.20	4.3	0
Potatoes: white (1 cup mashed[12])	159	50	.16	.10	1.7	14
Prunes: unsulfured[14] (1 cup C)	310	2,210	.07	.20	2.0	2
Raisins: unsulfured (1 tbs.)	26	trace	.02	.01	trace	trace
Rice: white (1 cup C)	201	(0)	.02	.01	.7	(0)
Round steak[3] (3 oz. C)	197	20	.06	.19	4.7	0
Salmon: pink, canned (3 oz.)	122	60	.03	.16	6.8	(0)
Sausage: pork, canned (4 oz.)	340	(0)	.23	.27	3.4	0
Spaghetti: enriched (1 cup C)	218	(0)	.25	.15	2.1	(0)
Spinach (1 cup C)	46	21,200	.14	.36	1.1	54
Sugar: granulated (1 tsp.)	16	(0)	(0)	(0)	(0)	(0)
Sweetpotatoes (1 baked)	183	11,410[12]	.12	.08	.9	28
Tomatoes (1 medium R)	30	1,640	.08	.06	.8	35
Turkey: medium fat (4 oz. R)	304	...	.10	.16	9.1	(0)
Turnips: diced (1 cup C)	42	trace	.06	.09	.6	28
Veal cutlet[3] (3 oz. C)	184	...	.07[15]	.24[15]	5.2[15]	0

[1] R—raw; C—cooked. [2] Cooked short time in small amount of water. [3] Boneless. [4] 4% nonfat milk solids. [5] Year-round average. [6] Made from skim milk. [7] Bone out. Vitamin values based on muscle meat only. [8] Based on yellow corn; white corn contains only a trace. [9] Patent. [10] Vitamin A added. [11] Meat only. [12] If very pale varieties only were used, value would be much lower. [13] Milk added. [14] No sugar added. [15] Data assume cut to be prepared by braising or pot roasting. Use of proportionate quantity of drippings would add approximately 50% more thiamine and niacin and 25% more riboflavin.

NOTE: Parentheses denote imputed values. The sign ... shows that no basis could be found for imputing a value although there was some reason to believe that a measurable amount might be present.

Chemical Elements

Source: Professor Philip S. Chen, Atlantic Union College.

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence*	Number of isotopes†	Discoverer	Date discovered
1	Hydrogen	H	1.0080	0.07‡	−259.14	−252.7	1	3	Cavendish	1766
2	Helium	He	4.003	0.15‡	<−272.2	−268.9	0	4	Ramsay	1895
3	Lithium	Li	6.940	0.534	186.	>1200.	1	5	Arfvedson	1817
4	Beryllium*** (Glucinum)	Be	9.013	1.84	1350.	1500.	2	4	Vauquelin	1798
5	Boron	B	10.82	2.535§	2300.	2500.	3	5	Gay-Lussac and Thenard; Davy	1808
6	Carbon	C	12.010	2.25**	>3500.	4200.	2, 3 or 4	6	Prehistoric	....
7	Nitrogen	N	14.008	0.810‡	−209.86	−195.3	3 or 5	6	Rutherford	1772
8	Oxygen	O	16.0000	1.14‡	−218.4	−183.00	2	6	Priestley	1774
9	Fluorine	F	19.00	1.14‡	−223.	−187.	1	4	Moissan	1886
10	Neon	Ne	20.183	0.90035 (g/10°C. 760mm)	−248.67	−245.9	0	5	Ramsay and Travers	1898
11	Sodium	Na	22.997	0.9287‡	97.5	880.	1	6	Davy	1807
12	Magnesium	Mg	24.32	1.741	651.	1110.	2	6	Davy	1808
13	Aluminum	Al	26.98	2.699†	660.0	1800.	3	6	Wöhler	1827
14	Silicon	Si	28.09	2.42**	1420.	2600.	4	6	Berzelius	1824
15	Phosphorus	P	30.975	1.83 (white)	44.1	280.	3 or 5	6	Brand	1669
16	Sulfur	S	32.066	2.0–1	112.8	444.6	2, 4 or 6	7	Prehistoric	....
17	Chlorine	Cl	35.457	1.507‡	−101.6	−34.6	1, 3, 5 or 7	7	Scheele	1774
18	Argon	A	39.944	1.423‡	−189.2	−185.7	0	8	Rayleigh and Ramsay	1894
19	Potassium	K	39.100	0.87	62.3	760.	1	8	Davy	1807
20	Calcium	Ca	40.08	1.54	810.	1170.	2	10	Davy	1808
21	Scandium	Sc	44.96	3.62 (10°C.)	1200.	2400.	3	8	Nilson	1879
22	Titanium	Ti	47.90	4.5	1800.	>3000.	3 or 4	8	Gregor	1791
23	Vanadium	V	50.95	5.69	1710.	3000.	2, 3, 4 or 5	8	Sefstrom	1830
24	Chromium	Cr	52.01	6.92	1615.	2200.	2, 3 or 6	8	Vauquelin	1798
25	Manganese	Mn	54.93	7.42	1260.	1900.	2, 3, 4, 6 or 7	6	Gahn	1774
26	Iron	Fe	55.85	7.85–88	1535.	3000.	2, 3 or 6	8	Prehistoric	....
27	Cobalt	Co	58.94	8.9	1480.	2900.	2 or 3	9	Brandt	1735
28	Nickel	Ni	58.69	8.60–90	1452.	2900.	2 or 3	11	Cronstedt	1751
29	Copper	Cu	63.54	8.30–95	1083.	2300.	1 or 2	10	Prehistoric	....
30	Zinc	Zn	65.38	7.04–16	419.43	907.	2	12	Marggraf	1746
31	Gallium	Ga	69.72	5.903	29.75	>1600.	2 or 3	11	Boisbaudran	1875
32	Germanium	Ge	72.60	5.46	958.5	2700.	4	13	Winkler	1886
33	Arsenic	As	74.91	5.73	814. (36 atm.)	615.	3 or 5	11	Albertus Magnus	1250§
34	Selenium	Se	78.96	4.3–8	220.	688.	2, 4 or 6	14	Berzelius	1818
35	Bromine	Br	79.916	3.12‡	−7.2	58.78	1, 3, 5 or 7	15	Balard	1826
36	Krypton	Kr	83.80	2.16‡	−169.	−151.8	0	19	Ramsay and Travers	1898
37	Rubidium	Rb	85.48	1.532	38.5	700.	1	16	Bunsen and Kirchhoff	1861
38	Strontium	Sr	87.63	2.50–58	800.	1150.	2	16	Davy	1808
39	Yttrium	Y	88.92	3.80	1490.	250.	3	15	Gadolin	1794
40	Zirconium	Zr	91.22	6.44	1700.	>2900.	4	12	Kloproth	1789
41	Niobium*** (Columbium)	Nb	92.91	8.4	1950.	>3300.	3 or 5	10	Hatchett	1801
42	Molybdenum	Mo	95.95	9.01	2620±10	3700.	2, 3, 4, 5 or 6	13	Hjelm	1781
43	Technetium	Tc	98.	11.487	2300.	.....	2, 3, 4 or 6	12¶¶	Perrier and Segre	1937
44	Ruthenium	Ru	101.7	12.06	2450.	>2700.	3, 4, 6 or 8	13	Klaus	1844
45	Rhodium	Rh	102.91	12.44	1955.	>2500.	3	10	Wollaston	1803
46	Palladium	Pd	106.7	12.16 (20°C.)	1555.	2200.	2 or 4	13	Wollaston	1803
47	Silver	Ag	107.880	10.503††	960.5	1950.	1	13	Prehistoric	....
48	Cadmium	Cd	112.41	8.648	320.9	767.	2	14	Stromeyer	1817
49	Indium	In	114.76	7.28	155.	1450.	1 or 3	13	Reich and Richter	1863
50	Tin	Sn	118.70	7.29	231.83	2260.	2 or 4	18	Prehistoric	....
51	Antimony	Sb	121.76	6.618	630.5	1380.	3 or 5	16	Prehistoric	....
52	Tellurium	Te	127.61	6.25**	452.	1390.	2, 4, or 6	17	von Richenstein	1782
53	Iodine	I	126.91	4.94	113.5	184.35	1, 3, 5 or 7	18	Courtois	1811

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence*	Number of isotopes†	Discoverer	Date discovered
54	Xenon	Xe	131.3	3.52‡	−140.	−109.1	0	23	Ramsay and Travers	1898
55	Cesium	Cs	132.91	1.873	26.	670.	1	18	Bunsen and Kirchhoff	1860
56	Barium	Ba	137.36	3.78	850.	1140.	2	17	Davy	1808
57	Lanthanum	La	138.92	6.5	826.	1800.	3	15	Mosander	1839
58	Cerium	Ce	140.13	6.9	770.	1400.	3 or 4	14	Klaproth; Berzelius and Hisinger	1803
59	Praseodymium	Pr	140.92	6.475	940.	.....	3, 4 or 5	9	Auer von Welsbach	1885
60	Neodymium	Nd	144.27	6.96	840.	.....	3	13	Auer von Welsbach	1885
61	Promethium	Pm	147.	.....	.....	.....	3	12¶¶	Marinsky and Glendenin	1945
62	Samarium	Sm	150.43	7.7–8	1350.	.....	2 or 3	14	Boisbaudran	1879
63	Europium	Eu	152.0	5.24	1100.	.....	2 or 3	12	Demarcay	1901
64	Gadolinium	Gd	156.9	7.95	.....	.....	3	13	Marignac	1880
65	Terbium	Tb	159.2	8.33	.....	.....	3 or 4	10	Mosander	1843
66	Dysprosium	Dy	162.46	8.56	.....	.....	3	10	Boisbaudran	1886
67	Holmium	Ho	164.94	8.76	.....	.....	3	7	Soret	1878
68	Erbium	Er	167.2	7.77 (?)	1250(?)	.....	3	9	Mosander	1843
69	Thulium	Tm	169.4	9.34	.....	.....	3	6	Cleve	1879
70	Ytterbium	Yb	173.04	9.01	1800.	.....	3	10	Marignac	1878
71	Lutetium	Lu	174.99	9.74	.....	.....	3 or 4	8	Urbain	1907
72	Hafnium	Hf	178.6	13.3	1700.	3200.	4	11	Coster and von Hevesy	1923
73	Tantalum	Ta	180.88	16.6	2850.	4100.	3 or 5	9	Ekeberg	1802
74	Tungsten	W	183.92	18.6–19.1	3370.	5900.	2, 4, 5 or 6	12	d'Elhuyar	1783
75	Rhenium	Re	186.31	20.53 (20°C.)	3000.	.....	4	7	Noddack and Berg	1925
76	Osmium	Os	190.2	22.5	2700.	5300.	2, 3, 4 or 8	13	Tennant	1804
77	Iridium	Ir	193.1	22.42	2350.	4800.	3 or 4	7	Tennant	1804
78	Platinum	Pt	195.23	21.37	1755.	4300.	2 or 4	9	De Ulloa	1748
79	Gold	Au	197.2	19.3††	1063.0	2600.	1 or 3	12	Prehistoric	....
80	Mercury	Hg	200.61	13.596‡	−38.87	356.90	1 or 2	14	Prehistoric	....
81	Thallium	Tl	204.39	11.86	303.5	1650.	1 or 3	13	Crookes	1861
82	Lead	Pb	207.21	11.347††	327.5	1620.	2 or 4	15	Prehistoric	....
83	Bismuth	Bi	209.00	9.80	271.	1450.	3 or 5	17	Geoffroy	1753
84	Polonium	Po	210.0	.....	.....	.....	..	19	Curie	1898
85	Astatine	At	211.	.....	470.	.....	1, 3, 5 or 7	15	Corson et al	1940
86	Radon	Rn	222.	9.739‡	−71.	−61.8	0	12	Dorn	1900
87	Francium	Fr	223.	.....	23.	.....	1	10	Perey	1939
88	Radium	Ra	226.05	6.0	960.	1140.	2	12	Curie	1898
89	Actinium	Ac	227	.....	.....	.....	3	8	Debierne	1899
90	Thorium	Th	232.12	11.13	1845.	3000.	4	13	Berzelius	1828
91	Protactinium	Pa	231.	.....	.....	.....	5	10	Hahn and Meitner	1917
92	Uranium	U	238.07	18.7	1850.	3927.	3, 4 or 6	14	Klaproth	1789
93	Neptunium	Np	239.	17.7	.....	.....	3, 4, 5 or 6	11¶¶	McMillan and Abelson	1940
94	Plutonium	Pu	238.	.....	.....	.....	3, 4, 5 or 6	11¶¶	Seaborg et al	1940
95	Americium	Am	241.	11.7	>850.	.....	3	8¶¶	Seaborg et al	1944
96	Curium	Cm	242.	.....	.....	.....	3	8¶¶	Seaborg et al	1944
97	Berkelium	Bk	243	.....	.....	.....	3 or 4	3¶¶	Seaborg et al	1950
98	Californium	Cf	244	.....	.....	.....	3	2¶¶	Seaborg et al	1950
99	.....	...	247	.....	.....	.....	3	1¶¶	Ghiorso et al	1954
100	.....	...	254	.....	.....	.....	3	1¶¶	Studier et al	1954
101	Mendelevium	Mv	256	.....	.....	.....	3	1¶¶	Ghiorso et al	1955

* VALENCE is a measure of the extent to which an atom is able to combine directly with others.

† Isotopes are different forms of the same element, having the same atomic number but different atomic weights. The number of isotopes given includes only those that are stable and natural occurring, excluding those marked ¶¶.

‡ Liquid. § Amorphous. ¶ Graphite. ** Crystalline. †† Compressed. ‡‡ Cast. §§ Exact date doubtful —born 1193 and died 1280. ¶¶ Have been artificially produced. *** New name adopted by International Union of Chemistry, replacing old name in parentheses. < Is less than. > Is greater than.

Figures in parentheses are tentative or theoretical.

The number of isotopes of each element is increased by discovery or by manufacture.

Scientific Inventions, Discoveries and Theories

Source: Encyclopaedia Britannica.

Inventions

Adding machine, recording: William S. Burroughs, 1888.

Airplane: Wilbur and Orville Wright, 1903.

Air brake, railroad: George Westinghouse, 1868.

Air pump: Otto von Guericke, 1650.

Automobile: (Product of inventions of many men. Gottlieb Daimler is frequently given credit, c.1887.)

Bakelite: Leo H. Baekeland, 1908.

Balloon, hot-air: Joseph and Jacques Montgolfier, 1783.

Barometer: Evangelista Torricelli, 1643.

Camera, Kodak: George Eastman, 1888.

Carburetor, spray: Charles E. Duryea, 1892.

Cellophane: J. E. Brandenberger, 1912.

Celluloid: John W. Hyatt, 1870.

Clock, pendulum: Christian Huygens, 1656.

Converter, Bessemer: William Kelly, 1851. (Patent bought by Sir Henry Bessemer, who made a similar invention in 1856.)

Cotton gin: Eli Whitney, 1793.

Cyanide: Nikodem Caro and Adolf Frank, 1905.

Cyclotron: Ernest O. Lawrence, 1931.

Daguerreotype process: Louis J. M. Daguerre, 1839.

Diesel engine: Rudolf Diesel, 1897.

Dynamite: Alfred B. Nobel, 1862.

Dynamo: Michael Faraday, 1831.

Dynamo, industrial: Zénobe Gramme, 1872.

Electromagnet: William Sturgeon, 1823.

Electroplating: Luigi Brugnatelli, 1805.

Elevator, passenger: Elisha G. Otis, 1857.

Elevator safety device: Elisha G. Otis, 1852.

Engine, high-speed internal-combustion: Gottlieb Daimler, 1885.

Filament, tungsten: Irving Langmuir, 1915.

Flying shuttle: John Kay, 1733.

Food preservation, hermetically sealed: François Appert, 1804.

Fountain pen: Lewis E. Waterman, 1884. (First successful one.)

Frequency modulation (FM): Edwin H. Armstrong, 1933.

Guncotton: Christian Schönbein, 1845.

Gyrocompass: Elmer A. Sperry, 1905.

Gyroscope: Léon Foucault, 1852.

Helicopter: Louis C. Bréguet, 1909.

Hydroplane: Glenn H. Curtiss, 1911.

Lamp, electric incandescent: (Inventor uncertain; Thomas A. Edison, who made a lamp in 1879, is sometimes credited.)

Lens, bifocal: Benjamin Franklin, c.1760.

Lightning rod: Benjamin Franklin, 1752.

Linotype machine: Ottmar Mergenthaler, 1884.

Lithography: Aloys Senefelder, 1796.

Machine gun: Richard J. Gatling, 1861.

Match, friction: John Walker, 1827.

Mercury-vapor lamp: Peter C. Hewitt, 1912.

Microscope, compound: Zacharias Janssen, 1590.

Microscope, electron: Vladimir Zworykin et al., 1939.

Miner's safety lamp: Sir Humphry Davy, 1815.

Monotype machine: Tolbert Lanston, 1887.

Motion pictures: Thomas A. Edison, 1893.

Motion pictures, sound: (Product of various inventions. First picture with synchronized musical score: *Don Juan*, Warner Bros., 1926. First picture with spoken dialogue: *The Jazz Singer*, Warner Bros., 1927.)

Motor, A-C: Nikola Tesla, 1892.

Ophthalmoscope: Hermann von Helmholtz, 1851.

Phonograph: Thomas A. Edison, 1877.

Photography, color: Gabriel Lippmann, 1891.

Power loom: Edmund Cartwright, 1785.

Printing, movable-type: Johann Gutenberg (?), c.1440.

Printing press, rotary: Richard Hoe, 1847.

Radio: (Product of various inventions. First practical system of wireless telegraphy: Guglielmo Marconi, 1895.)

Radio telephone: Lee De Forest, 1906.

Radio tube, diode: Sir John Ambrose Fleming, 1904.

Radio tube, triode: Lee De Forest, 1906.

Rayon: Sir Joseph Swan, 1883.

Reaper: Cyrus McCormick, 1834.

Revolver: Samuel Colt, 1835.

Rifle, automatic: John M. Browning, 1918.

Rubber, vulcanized: Ch. Goodyear, 1839.

Screw propeller: John Ericsson, 1837.

Self-starter, automobile: Charles F. Kettering, 1911.

Sewing machine: Elias Howe, 1846.

Spinning frame: Sir Richard Arkwright, 1769.

Spinning jenny: James Hargreaves, 1764.

Spinning mule: Samuel Crompton, 1779.

Steamboat: Robert Fulton, 1807. (First commercially successful one in U. S.)

Steam engine: James Watt, 1765. (First practical one.)

Tank, military: Sir Ernest Swinton, 1914.

Telegraph, electromagnetic recording: Samuel F. B. Morse, 1837.

Telephone: Alexander Graham Bell, 1876.

Telescope: Hans Lippershey (?), c.1608.

Television: (Product of various inventions since 1920s and before. First commercial TV: July 1, 1941, over WNBT, New York.)

Thermometer: Galileo Galilei, 1593.

Tire, pneumatic: John B. Dunlop, 1888.

Tractor, caterpillar: Benjamin Holt, 1900.

Transformer, electric: Wm. Stanley, 1885.

Typewriter: Christopher Sholes, 1868. (First practical one.)

Zeppelin: Ferdinand von Zeppelin, 1900.

Discoveries and Theories

Adrenaline, isolation of: Jokichi Takamine, 1901.

Aluminum manufacture by electrolytic action: Charles M. Hall, 1886.

Antitoxin, diphtheria: Emil von Behring, 1890.

Atom smashing with slow neutrons: Enrico Fermi, 1934. (Experiment repeated by Lise Meitner and Otto Hahn in 1938.)

Atomic numbers: Henry Moseley, 1913.

Atomic theory: John Dalton, 1803.

Aureomycin: Benjamin M. Duggar, 1948.

Bacteria: Anton van Leeuwenhoek, 1675.

Blood, circulation of: William Harvey, 1628.

Classification of plants and animals: Carolus Linnaeus, 1737–53.

Combustion, nature of: Antoine Lavoisier, 1777.

Conditioned reflex: Ivan Pavlov, c.1910.

Deuterium (heavy hydrogen): Harold C. Urey, 1932.

Displacement of water, principle of: Archimedes, 3rd century B.C.

Electromagnetic waves: Heinrich Hertz, 1886.

Electron: Sir Joseph J. Thomson, 1897.

Electron, wave nature of: Louis Victor de Broglie, 1924.

Ether, first used as anesthetic: Crawford W. Long, 1842.

Evolution by natural selection: Charles Darwin, 1859.

Falling bodies, law of: Galileo Galilei, 1590.

Gases, laws governing: Joseph Gay-Lussac, 1809.

Gravitation, law of: Sir Isaac Newton, 1687.

Helium on sun: Sir Joseph Lockyer, 1868.

Heredity, laws of: Gregor Mendel, 1865.

Induction, electric: Joseph Henry, 1828.

Insulin: Sir Frederick G. Banting and J. J. R. MacLeod, 1922.

Intelligence testing, modern: Alfred Binet and Theodore Simon, 1905.

Isotopes, mass spectra of: Francis W. Aston, 1919.

Isotopes, theory of: Frederick Soddy, 1912.

Light, electromagnetic theory of: James Clerk Maxwell, 1873.

Light, velocity of: Olaus Römer, 1675.

Molecular hypothesis: Amadeo Avogadro, 1811.

Neutron: James Chadwick, 1932.

Ohm's Law: Georg S. Ohm, 1827.

Ozone: Christian Schönbein, 1839.

Penicillin: Sir Alexander Fleming, 1929.

Periodic table: Dmitri Mendeleev, 1869.

Positron: Carl D. Anderson, 1932.

Proton: Ernest Rutherford, 1919.

Psychoanalysis: Sigmund Freud, c.1904.

Quantum mechanics: Werner Heisenberg, 1925.

Quantum theory: Max von Planck, 1901.

Rabies preventive: Louis Pasteur, 1885.

Radioactivity: Antoine Becquerel, 1896.

Radioactivity, artificial: Frédéric and Irène Joliot-Curie, 1934.

Relativity, theories of: Albert Einstein, 1905–53.

Salk antipolio vaccine: Jonas E. Salk, announced successful 1955.

Schick test of susceptibility to diphtheria: Béla Schick, 1913.

Secretin, isolation of: Sir William Bayliss and Ernest Starling, 1902.

Soda manufacture from salt: Ernest Solvay, 1861.

Solar system, heliocentricity of: Nicolaus Copernicus, 1530. (Also Aristarchus of Samos, 3rd century B.C.)

Spectrum analysis: Robert Bunsen and Gustav Kirchhoff, 1859.

Sulfa drugs as bactericides: Gerhard Domagk, 1932.

Surgery, antiseptic: Sir Joseph Lister, 1867.

Tuberculosis bacillus: Robert Koch, 1882.

Vaccination: Edward Jenner, 1796.

Virus, crystalized: Wendell M. Stanley, 1935.

Vitamin A: Elmer V. McCollum, 1912–14.

Vitamin B: Elmer V. McCollum, 1915–16.

Vitamin C: A. Holst, 1912.

Vitamin D: Elmer V. McCollum, 1922.

Vitamin D, irradiated: Harry Steenbock, 1924.

Wassermann test for syphilis: August von Wassermann, 1906.

Water, synthesis of: Henry Cavendish, 1781.

Wilson Cloud Chamber: Charles T. R. Wilson, 1911.

X-rays: Wilhelm Roentgen, 1895.

The Races of Mankind

by PROFESSOR WILTON MARION KROGMAN
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Classification of Man into groups called "races" rests upon the basic fact that all peoples belong to the same genus and species, *Homo sapiens*. This is important to keep in mind, for it implies that all peoples are much more alike than different.

Scientists classify Man by using a number of physical traits, most of them based upon observation rather than upon precise measurement (blood-groups are an exception). Examples of these are stature and head-form (determined by a breadth/length ratio), skin color, hair color, form and texture, eye color, nose shape, mouth form, shape of face with special reference to cheekbones. Other criteria, such as arm and leg proportions, are more specialized. Two things are noteworthy: (1) most physical traits are external; (2) physical traits are so variable that a single trait has virtually no diagnostic value.

We may define a *race* as a sub-group of Mankind more or less set apart by a heritable combination of physical traits.

There are three, possibly four, great aggregates of races, usually called *stocks:* Caucasoid, Mongoloid, Negroid, and Archaic Caucasoid (or Australoid). The first three are often referred to as "White," "Yellow," and "Black." This is not really correct; peoples of North-Central India are Caucasoids, yet their skin color is brown to dark brown; certain tribes of Northeast Africa are Negroids, yet their skin color is light brown to brown. Variability also may be seen in stature: the tallest people in the world are found in Denmark and the Scottish Highlands, in East Africa, and in southernmost South America—respectively Caucasoid, Negroid, and Mongoloid. It must be re-emphasized that not one or two traits, but an aggregate of traits, of genetic origin, provides the only valid method of setting up stock or racial classification.

Caucasoids are the peoples of Europe, the adjacent shores of North Africa, and of Asia Minor and the northern half of India. The following races belong to the Caucasoid stock: Nordic, or Northwest European, Alpine or Central European, Mediterranean or Southwest European, Baltic or Northeast European, Dinaric or Southeast European, Armenoid in western Asia Minor, and Indic (often called Hindu) in North-Central India. These races are not, of course, absolutely limited to those geographical areas. For example, the Mediterranean race is found also in North Africa, especially Egypt, and in Asia Minor, where it is represented by the Bedouin Arabs of Arabia. Other Caucasoid peoples are the Magyars, the Finns, and the Lapps, who show traces of Mongoloid mixtures, especially the last.

The Negroids are the peoples of Africa and Oceania, termed respectively the African Negroids and the Oceanic Negroids. The following African Negroid races are commonly recognized: Forest or West African or "True" Negro in West Africa. Sudanic in Central Africa, Nilotic in East Africa, Hamitic in Northeast and North Africa, Bantu (better: Bantu-speaking) in South Africa, and Bushman-Hottentot in the Kalahari Desert of South Africa. The Oceanic Negroids are commonly called Melanesian or Papuan, and are found chiefly in Borneo, New Caledonia, the Solomons, the Hebrides and Fiji.

Of special interest among Negroids are Pygmies, who average about four feet in stature. They are found in Africa in the Congo region, in the Ituri Forest, and in Oceania on the Andaman Islands, the Malay Peninsula, the Philippines, and Borneo.

The Mongoloids are basically the peoples of Asia, but are also in the Western Hemisphere as the American Indians, and are represented in Malaysia and in Oceania. The Mongoloids are usually divided into the following races: Sinic of China and Japan, Palearctic of Siberia, Turkic and Tungic or Mongolic of Central Asia, and Malayan of Malaysia. In the Western Hemisphere they are found as Eskimos and the Indians of the Americas. In Polynesia, i.e., in Samoa, Tonga, Hawaii and west to Easter Island, the Mongoloid stock is a basic element, with some Caucasoid and some Negroid (Melanesian?) admixture.

The Archaic Caucasoids are found in Australia as the Australian aborigines and in Japan as the Ainu. They may possibly be an element in Melanesia and in Ceylon and South India, e.g., the Toda, the Vedda, and other tribes.

This is a brief survey of the "stocks" and "races" of the world. There is much intermixing and some overlapping. This leads to two very important biological observations: (1) *there are no pure races;* (2) *there are no superior or inferior races.* We know from history that all peoples, upon contact, have crossed their genetically based physical traits. We know from human anatomy that in fundamental structure all peoples are identical.

As far as biological Man is concerned, what he is, is related to his cultural environment, rather than to any innate (or inherited) ability or aptitude. There is no "German race," only a German nationality; there is no "Jewish race," only a Jewish socio-religious community; there is no "Aryan race," only an Aryan language: there is no "master race," only a political bombast!

RELIGION

★

Principal Religions of the World

Source: Encyclopaedia Britannica.

Statistics of the world's religions are only very rough approximations. Aside from Christianity, few religions, if any, attempt to keep statistical records; and even Protestants and Catholics employ different methods of counting members. All persons of whatever age who have received baptism in the Catholic Church are counted as members, while in most Protestant Churches only those who "join" the church are numbered. The compiling of statistics is further complicated by the fact that in China one may be at the same time a Confucian, a Taoist and a Buddhist. In Japan, one may be both a Buddhist and a Shintoist.

Religion	North America	South America	Europe	Asia[1]	Africa	Oceania[2]	Total
Christian—Total	128,467,527	91,677,138	441,383,109	25,374,305	28,911,430	26,171,973	741,985,482
Roman Catholic	74,561,995	89,412,040	215,363,295	8,857,842	14,194,448	18,951,281	421,340,901
Eastern Orthodox	1,208,157	.....	112,447,669	8,106,071	5,868,089	.....	127,629,986
Protestant	52,697,375	2,265,098	113,572,145	8,410,392	8,848,893	7,220,692	193,014,595
Jewish[3]	5,185,000	597,850	3,505,800[4]	1,247,200	723,500	44,000	11,303,350
Mohammedan	32,600	139,156	3,866,000	251,227,347	60,359,000	75,000	315,699,103
Zoroastrian	.....	.....	.....	124,890	.....	.....	124,890
Shinto	.....	.....	.....	25,000,000	.....	.....	25,000,000
Taoist	15,000	17,000	12,000	50,000,000	1,200	8,000	50,053,200
Confucian	85,000	95,000	50,000	300,000,000	7,500	52,000	300,289,500
Buddhist	165,000	135,000	.....	150,000,000	.....	.....	150,300,000
Hindu	10,000	275,000	.....	255,030,506	300,000	100,000	255,715,506
Primitive	50,000	1,000,000	.....	45,000,000	75,000,000	100,000	121,150,000
Others or none	76,540,873	9,803,856	82,491,091	160,559,752	12,639,370	5,363,027	347,397,969
Grand Total	210,551,000	103,740,000	531,308,000	1,263,564,000	177,942,000	31,914,000	2,319,019,000

[1] Includes Indonesia, but not Philippines. [2] Includes Philippines. [3] Includes all Jews, whether or not members of a synagogue. [4] Includes Asiatic U.S.S.R. and Turkey.

History of Leading Religious Groups in the United States

(50,000 members or over)

Source: Yearbook of American Churches.

Baptist

American Baptist Association.—A group of Independent Missionary Baptist Churches organized into an association in 1905. Members (1951): 286,691.

American Baptist Convention.—The early historical local independency of Baptist churches in America tended to impede the formation of any general organization until in 1814 a General Missionary Convention was formed to permit Baptists to express themselves in terms of missionary activities. In 1845, the state conventions in the South withdrew to organize the Southern Baptist Convention. In 1907, the Northern Baptist Convention was organized, a delegated body under whose direction the many agencies of the Baptists in the North and West now operate. In May, 1950, the name was changed to the American Baptist Convention. Members (1953): 1,505,871.

Baptist General Conference of America.—Formerly known as the Swedish Baptist General Conference of America. It has operated as a general conference since 1879. Members (1954): 52,485.

Free Will Baptists.—A body of Arminian Baptists, organized in 1787 by Benjamin Randall in New Hampshire. Members (1954): 425,000.

The General Association of Regular Baptist Churches.—Founded in 1932 in Chicago by a group of churches which had withdrawn from the Northern Baptist Convention. Members (1953): 113,878.

General Baptists.—An Arminian group of Baptists, organized in 1607 and transplanted to the Colonies in 1714. It died down in the East but was revived in the Midwest in 1823 under Rev. Benoni Stinson. Members (1954): 51,368.

National Baptist Convention, U. S. A., Inc.—The older and parent convention of Negro Baptists. This body is to be distinguished from the National Baptist Convention of America, usually referred to as the "unincorporated" body. Members (1954): 4,557,416.

National Baptist Convention of America.—This is a body usually referred to as the "unincorporated" convention, not to be confused with the "incorporated" National Baptist Convention, U. S. A., Inc., from which this body withdrew. Organized in 1895. Members (1954): 2,608,974.

National Baptist Evangelical Life and Soul Saving Assembly of U. S. A.—Organ-

ized in 1921 by A. A. Banks, Sr., as a charitable, educational, and evangelical organization. Members (1951): 57,674.

National Primitive Baptist Convention of the U. S. A.—A group of Negro Baptists opposed to all forms of church organization. Members (1952): 80,000.

North American Baptist Association.—Organized 1950 in Little Rock, Ark., as the result of a division in the American Baptist Association. In theology these churches are militantly fundamentalist. Members (1954): 243,750.

Primitive Baptists.—A large group of Baptists, largely through the South, who are opposed to all centralization, to modern missionary societies, and to Sunday schools. They are sometimes called "anti-missionary" Baptists. Members (1950): 72,000.

Southern Baptist Convention.—In 1845, Southern Baptists withdrew from the General Missionary Convention over the question of slavery and other matters and formed the Southern Baptist Convention. Members (1954): 8,163,562.

United Baptists.—This group dates from meetings of Regular Baptists and Separate Baptists held in Richmond, Va., in 1787, and a meeting under the name United Baptists in Clark County, Ky., in 1801. Members (1954): 60,525.

The United Free Will Baptist Church.—A body which set up its organization in 1901. Though ecclesiastically distinct, they are in close relations with the Free Will Baptists. Members (1952): 100,000.

Catholic and Orthodox

Armenian Apostolic Orthodox Church of America.—The American branch of the Ancient Church of Armenia. Established in the U. S. in 1889. Diocesan organization under the jurisdiction of the Holy See of Etchmiadzin, Armenia, U.S.S.R. Members (1954): 80,000.

The American Carpatho-Russian Orthodox Greek Catholic Church.—This church is a self-governing diocese in communion with the Ecumenical Patriarchate of Constantinople. On Sept. 19, 1938, the late Patriarch Benjamin I canonized the diocese in the name of the Orthodox Church of Christ. Members (1954): 75,100.

Greek Archdiocese of North and South America:—Greek-speaking Orthodox Christians have had parishes in the U. S. for the last seventy years. These were first under the jurisdiction of the Metropolitan of Athens and later under the Patriarchate of Constantinople. Political changes in Europe have been reflected in this country and have brought difficulties in all branches of the Orthodox Church. In 1931, a general convention held in New York City under the presidency of Archbishop Athenagoras brought a large measure of unity and order. Members (1954): 1,000,000.

North American Old Roman Catholic Church.—This body is identical with the Roman Catholic Church in worship, faith, etc., but differs in discipline. It was received into union with the Eastern Orthodox Church by the Archbishop of Beirut in 1911 and by the Orthodox Patriarch of Alexandria in 1912. Members (1954): 85,225.

Polish National Catholic Church of America.—After long dissatisfaction with Roman Catholic Administration in many Polish parishes, this group was organized in 1904. Members (1951): 265,879.

The Roman Catholic Church.—The largest single group of Christians in the U. S., the Roman Catholic Church is under the spiritual leadership of Pope Pius XII. This group dates back to the priests who accompanied Columbus on his second voyage to the New World. A settlement, later discontinued, was made at St. Augustine, Fla. The continuous history of this Church in the colonies began at St. Mary's in 1634, in Maryland. Members (1954): 32,403,332.

Romanian Orthodox Episcopate of America.—This body of Eastern Orthodox Christians of Rumanian descent is under the spiritual supervision and canonical jurisdiction of the Bishop of the Romanian Orthodox Church of North and South America. Members (1954): 50,000.

The Russian Orthodox Church Outside Russia.—Organized in 1920 to unite the missions and parishes of the Russian Orthodox Church outside of Russia. Members (1951): 55,000.

The Russian Orthodox Greek Catholic Church of North America.—The Russian Orthodox Catholic Church entered Alaska in 1792. In 1872, its headquarters were moved from Sitka to San Francisco and, in 1905, to New York. It administrates churches in the U. S., Canada, Alaska, Aleutian Is., South America and Japan. Members (1953): 440,000.

Serbian Eastern Orthodox Church.—This body of the Eastern Orthodox Church has its own diocese and is under jurisdiction of the Serbian Patriarchate (Yugoslavia). Members (1953): 100,000.

U. S. Church Membership, 1954

Source: Yearbook of American Churches.

Religious group	Members
Buddhist	63,000
Old Catholic and Polish National Catholic	367,918
Eastern Orthodox	2,024,219
Judaism	5,500,000
Roman Catholic	32,403,332
Protestant	57,124,142
Total	97,482,611

NOTE: Compiled from figures furnished by 254 of the 268 religious bodies in the U. S.

Syrian Antiochian Orthodox Church.—This body is a division of the Orthodox Church which is under the jurisdiction of the Patriarch of Antioch. It is a member of the Federation of Orthodox Greek Catholic Churches in America. Members (1954): 75,000.

Ukrainian Orthodox Church of U.S.A.—This church was organized in the U. S. in 1919. Members (1954): 71,248.

Lutheran

American Lutheran Church.—This Church is a constituent body of the American Lutheran Conference. It is itself the result of the merger in 1930 of the Evangelical Lutheran Joint Synod of Ohio and Other States (org. 1918), the Evangelical Lutheran Synod of Iowa and Other States (org. 1854), and the Lutheran Synod of Buffalo (org. 1845). Members (1953): 799,-790.

Augustana Evangelical Lutheran Church.—This group, whose constituency originally was of Swedish extraction, is a member of the American Lutheran Conference and is also a participating body in the National Lutheran Council. Organized in 1860. Members (1954): 510,116.

Evangelical Lutheran Church.—In 1917 the United Norwegian Church, the Norwegian Synod and the Hauge Synod united under the name, Norwegian Lutheran Church of America. In 1930 this group became a constituent part of the American Lutheran Conference. The new name, The Evangelical Lutheran Church, was adopted at its General Convention in 1946. Members (1953): 900,536.

The Evangelical Lutheran Joint Synod of Wisconsin and Other States.—This group, a constituent part of the Synodical Conference, was organized in Wisconsin in 1850. Members (1953): 322,947.

Lutheran Church-Missouri Synod.—This group, the largest constituent part of the Synodical Conference, was organized in 1847, holds to an unwavering confessionalism and is the leader in the conservative group among the Lutherans. Members (1954): 1,932,000.

Lutheran Free Church.—This body was organized in 1897 as the result of differences of opinion in the United Norwegian Church over control of the Augsburg Seminary. It became a constituent part of the American Lutheran Conference in 1930. Members (1954): 68,773.

United Evangelical Lutheran Church.—This synod was organized in 1896 in Minneapolis by a merger of the two former Danish Lutheran Synods in America—the Danish Ev. Luth. Church Conference (1884) and the Danish Ev. Luth. Church in North America (1893). Members (1953): 52,236.

United Lutheran Church in America.—This group dates back to the Ministerium of Pennsylvania, organized in 1748, and beyond that to early colonial days. It represents the union of the General Synod, General Council, and United Synod of the South in 1918. Members (1954): 2,113,779.

Methodist

African Methodist Episcopal Church.—This group was formed in Philadelphia in 1816 and extended throughout the South after the Civil War. Members (1951): 1,166,301.

African Methodist Episcopal Zion Church.—This group was organized in 1796, coming out of the John Street Methodist Church, New York. Members (1952): 760,158.

Colored Methodist Episcopal Church.—In 1870, the General Conference of the M.E. Church, South, approved the request of its colored membership for the formation of their conferences into a separate body. Members (1951): 392,167.

Free Methodist Church of North America.—This body, organized in 1860, grew out of a movement in the Genesee Conference of the Methodist Episcopal Church towards a more original Methodism. Members (1954): 50,660.

The Methodist Church.—In April, 1939, the Uniting Conference forming The Methodist Church was held by representatives of the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Protestant Church. The Methodist Church in the United States originated with the efforts of John and Charles Wesley, leaders of the revival movement in England in the eighteenth century. Methodist emigrants from Ireland planted Methodism in America about 1760. In 1771 Francis Asbury, one of Wesley's preachers, later a Bishop, landed in Philadelphia. The Methodist Episcopal Church was organized in 1784–85. The Methodist Episcopal Church, South, dated from 1846, the separation from the Methodist Episcopal Church having taken place over the slavery issue. The Methodist Protestant Church dated from 1830, and was organized over the issue of lay representation. Members (1954): 9,202,728.

Presbyterian

Cumberland Presbyterian Church.—In 1806, a presbytery (Cumberland) of the Presbyterian Church was dissolved by the Synod of Kentucky on account of its attitude toward revivalism. Members of the presbytery organized as an independent body in 1810 and became the Cumberland Presbyterian Church. When this body attempted to reunite with the Presbyterian Church in 1906, a minority preferred to continue as an independent church as above. Members (1954): 84,776.

Presbyterian Church in the U. S.—This group is the branch of the Presbyterian Church which separated from the main body at the time of the Civil War. It is often called the "Southern" Presbyterian Church. Members (1954): 780,837.

Presbyterian Church in the United States of America.—This group appeared among the earliest colonists of America. Its first church was established about 1640. Members (1954): 2,526,129.

United Presbyterian Church of North America.—This group dates back to the Reformed Presbyterian (Covenanter) Church (1643) and the Associate Presbyterian (Seceder) Church (1733), both of Scotland. These two groups appeared in America in 1774 and 1753 respectively. They united and became the Associate Reformed Presbyterian Church in 1782. A minority, however, continued as the Associate Presbyterian Church. In 1858 the two groups united and became the United Presbyterian Church. Members (1954): 237,233.

Others

Apostolic Overcoming Holy Church of God.—A Negro body incorporated in Alabama in 1919. It is evangelistic in purpose. Members (1951): 75,000.

Assemblies of God.—Independent, pentecostal, evangelical, missionary churches associated for co-operative effort in district and general councils. Organized in Arkansas in 1914. Members (1954): 400,000.

Buddhist Churches of America.—Organized in 1914 as the Buddhist Mission of North America, this group was incorporated in 1942 under the present name and represents Buddhism in this country, the faith based on "the anatman doctrine, supplemented by the idea of karma, and nirvana, the holy ease or a blissful mental state of absolute freedom from evil." Members (1954): 63,000.

Christ Unity Science Church, Inc.—Established 1810. Members (1953): 1,581,286.

The Christian and Missionary Alliance.—An evangelical, evangelistic and missionary movement organized in 1887. It stresses "the deeper Christian life and consecration to the Lord's service." Members (1953): 61,483.

Christian Reformed Church.—A group of Dutch Calvinists which dissented from the Reformed Church in America in 1857 and which was strengthened by later accessions from the same source and by immigration. Members (1954): 196,822.

Church of Christ, Scientist.—Founded by Mary Baker Eddy in 1879. As defined by Mrs. Eddy, Christian Science is the scientific system of divine healing and the reinstatement of primitive Christianity.*

*Membership figure not available. The manual of the church forbids "the numbering of people and the reporting of such statistics for publication."

The Church of God.—Inaugurated by Bishop A. J. Tomlinson, who served as General Overseer 1903–43. Episcopal in administration. Members (1954): 68,773.

Church of God (Anderson, Ind.).—This group is one of the largest of the groups which have taken the name "Church of God." Its headquarters are at Anderson, Ind. It originated about 1880. Members (1954): 118,696.

Church of God (Cleveland, Tenn.).—This body, to be differentiated from the Church of God at Anderson, Ind., is a holiness group and pentecostal. It began in 1886 in Tennessee, under the name of Christian Union, reorganized in 1902 as the Holiness Church. In 1907 it adopted the name above. Members (1954): 138,349.

Church of God in Christ.—Organized in Arkansas in 1895, by C. P. Jones and C. H. Mason, who believed there was no salvation without holiness; incorporated 1897. Members (1954): 328,304.

Church of Our Lord Jesus Christ of the Apostolic Faith, Inc.—This church was founded by Bishop R. C. Lawson in Columbus, Ohio, and was moved to New York City in 1919. It is based upon the teachings of the Apostles and Prophets, Jesus Christ being its chief cornerstone. Members (1952): 50,000.

Church of the Brethren (Conservative Dunkers).—German pietists from Crefeld, Germany, under the leadership of Peter Becker, entered the colonies in 1719, and settled at Germantown, Philadelphia, Pa. They were called Dunkers (baptizers) and were immersionists. The members are conservative as to attire, oaths or affirmations, resistance to force, temperance, and the like. Members (1954): 193,547.

Church of the Nazarene.—One of the larger holiness bodies, organized in Pilot Point, Tex., Oct. 1908. It is in general accord with the early doctrines of Methodism and emphasizes entire sanctification. Members (1954): 260,551.

Churches of Christ.—This body is made up of a large group of churches, formerly reported with the Disciples of Christ, but since the religious census of 1906, reported separately. They are strictly congregational and have no organization larger than the local congregation. Members (1954): 1,600,000.

Congregational Christian Churches.—Congregational churches date back to the Pilgrim Fathers and the early colonists of New England in 1620. The Christian churches date back to the Wesleyan and revival movements at the end of the eighteenth century. These two groups of churches were merged at Seattle, Wash., in 1931. Members (1954): 1,298,205.

Disciples of Christ.—In the revival period of the early nineteenth century, a movement under Thomas Campbell and

his son, Alexander, resulted in the establishment of a fellowship called Christians or Disciples. They believe that sects are unscriptural. Members (1954): 1,881,911.

Evangelical and Reformed Church.—This body was formed on June 26, 1934, at Cleveland, Ohio, by a union of the Evangelical Synod of North America and the Reformed Church in the United States. The union was unique in that it left all details to be adjusted afterwards. The constitution was declared in effect at the General Synod which met at Lancaster, Pa., in June 1940. Members (1954): 761,842.

Evangelical Mission Covenant Church of America.—A transplantation to the U. S., in 1885, of a free-church movement in the Swedish state church. Until recently the name has been the Swedish Evangelical Mission Covenant. Members (1954): 53,388.

The Evangelical United Brethren Church.—This group had its origin in Johnstown, Pa., November 16, 1946, in the consummation of organic union between the Evangelical Church and the Church of the United Brethren in Christ. Both these former communions had their beginning in Pennsylvania in the evangelistic movement of the early 19th century. Jacob Albright was the founder of the Evangelical Church, and Dr. Philip William Otterbein was the founder of the United Brethren Church in 1800. Members (1954): 746,206.

Federated Churches.—Actually not a denomination but a group of local churches in various parts of the country, federated under the above name. Members (1936): 88,411.

Friends, The Five Years Meeting of.—The Five Years Meeting of Friends was formed in 1902 by 13 Yearly Meetings entering into a loose confederation. Since then, two of the original Yearly Meetings have withdrawn (Kansas and Oregon) and three Yearly Meetings outside the U. S. have joined. Members (1954): 69,560.

Independent Fundamental Churches of America.—Organized in 1930, at Cicero, Ill., by representatives of various independent churches. Members (1946): 65,000.

International Church of the Foursquare Gospel.—An evangelistic missionary body organized by Aimee Semple McPherson in 1927. The parent church is Angelus Temple in Los Angeles. Members (1954): 87,206.

Jewish Congregations.—Jews arrived in the colonies before 1650. The first congregation is recorded in 1656, in New York City, the Shearth Israel (Remnant of Israel). Members (1954): 5,500,000.

Latter-day Saints, Church of Jesus Christ of.—A group in which the Bible, the Book of Mormon, the Doctrine and Covenants and the Pearl of Great Price are regarded as the word of God. The primitive church organization is sought. Members (1954): 1,170,997.

Latter-day Saints, Reorganized Church of Jesus Christ of.—A division among the Latter-day Saints (Mormons) occurred on the death of Joseph Smith in 1844. His son, Joseph Smith, became presiding officer of this group, which has headquarters at Independence, Mo. Members (1954): 134,705.

Mennonite Church.—The largest group of the Mennonites who began arriving in the U. S. in 1683, settling in Germantown, Pa. They derive their name from Menno Simons, born 1496. Members (1954): 63,998.

Moravian Church (Unitas Fratrum).—In 1735, Moravian missionaries of the pre-Reformation faith of John Hus came to Georgia and, in 1740, to Pennsylvania. They established the Moravian Church. Members (1954): 52,735.

Pentecostal Assemblies of the World, Inc.—A pentecostal holiness group originating in the early part of the century and found largely in the Midwest. Members (1954): 60,000.

The Protestant Episcopal Church.—This group entered the colonies with the earliest settlers as the Church of England. It became autonomous, adopted its present name in 1789. Members (1953): 2,660,699.

Reformed Church in America.—This group was established by the earliest Dutch settlers of New York as the Reformed Protestant Dutch Church in 1628. Members (1954): 203,230.

The Salvation Army.—An evangelistic organization, with a military government, first set up by General William Booth in England and introduced into the U. S. in 1880. Members (1954): 240,130.

Seventh-day Adventists.—This body developed out of the Adventist movement (1833–1844), which emphasized the imminent personal return of Jesus Christ. It emphasized the observance of the seventh-day Sabbath and in 1863 was numerous enough to organize a conference. Members (1954): 270,079.

Spiritualists, International General Assembly of.—Organized in Buffalo, N. Y., in 1936 to charter Spiritualist churches. Members (1952): 157,000.

Unitarian Churches.—The Unitarian movement in Congregationalism, beginning in the eighteenth century, produced the American Unitarian Association in 1825. In 1865 a national conference was organized. Members (1954): 90,398.

United Pentecostal Church, Inc.—Pentecostal Church, Inc., and Pentecostal Assemblies of Jesus Christ merged in 1945 at St. Louis. Members (1954): 125,000.

The Universalist Church of America.—Originated in the U. S. about 1785. In 1866, it was incorporated as the Universalist General Convention; but in 1942, the present name was adopted. Members (1954): 71,000.

Bishops of the Protestant Episcopal Church

Source: Alexander M. Rodger, Secretary, The House of Bishops, 207 Fairmount Ave., Ridgewood, N. J.

(Note: M—Missionary Bishop; C—Coadjutor; S—Suffragan)

Presiding Bishop: Henry K. Sherrill, New York City. Vice President of National Council: John B. Bentley, New York City.

Alabama: Chas. C. J. Carpenter, George M. Murray (S), Birmingham.
Alaska: Wm. J. Gordon, Jr. (M), Fairbanks.
Albany (N. Y.): Frederick L. Barry, David E. Richards (S).
Arizona: Arthur B. Kinsolving, II (M), Phoenix.
Arkansas: R. Bland Mitchell, Robert R. Brown (C), Little Rock.
Atlanta (Ga.): Randolph R. Claiborne.
Bethlehem (Pa.): Frederick J. Warnecke.
California: Karl M. Block, Henry H. Shires (S), San Francisco.
Central Brazil: Louis C. Melcher (M), Rio de Janeiro.
Central New York: Malcolm E. Peabody, Walter M. Higley (S), Syracuse.
Chicago: Gerald F. Burrill, Charles L. Street (S).
Colorado: Joseph S. Minnis, Denver.
Connecticut: Walter H. Gray, Robert McC. Hatch (S), Hartford.
Cuba: Alexander H. Blankingship (M), Havana.
Dallas (Tex.): C. Avery Mason, John J. M. Harte (S).
Delaware: J. Brooke Mosley, Wilmington.
East Carolina: Thomas H. Wright, Wilmington, N. C.
Eastern Oregon: Lane W. Barton (M), Bend.
Easton (Md.): Allen J. Miller.
Eau Claire (Wis.): William W. Horstick.
Erie (Pa.): William Crittenden.
European Churches: Stephen E. Keeler, Minneapolis, Minn.
Florida: Frank A. Juhan, Hamilton West (C), Jacksonville.
Fond du Lac (Wis.): Harwood Sturtevant, William H. Brady (C).
Georgia: Albert R. Stuart, Savannah.
Haiti: C. A. Voegeli (M), Port-au-Prince.
Harrisburg (Pa.): J. Thomas Heistand.
Honolulu: Harry S. Kennedy (M).
Idaho: Frank A. Rhea (M), Boise.
Indianapolis: Richard A. Kirchhoffer.
Iowa: Gordon V. Smith, Des Moines.
Kansas: Goodrich R. Fenner, Topeka.
Kentucky: C. Gresham Marmion, Jr., Louisville.
Lexington (Ky.): William R. Moody.
Liberia: Bravid W. Harris (M)., Monrovia.
Long Island: James P. DeWolfe, Jonathan G. Sherman (S), Garden City, N. Y.
Los Angeles: Francis E. I. Bloy, Donald J. Campbell (S).
Louisiana: Girault M. Jones, New Orleans; Iveson B. Noland (S), Alexandria.
Maine: Oliver L. Loring, Portland.
Maryland: Noble C. Powell, Harry L. Doll, (S), Baltimore.
Massachusetts: Norman B. Nash, Anson Phelps Stokes, Jr. (C), Boston.
Mexico: Efrain Salinas y Velasco (M), Mexico City.
Michigan: Richard S. M. Emrich, Archie H. Crowley (S), Detroit.
Milwaukee: Donald H. V. Hallock.
Minnesota: Stephen E. Keeler, Hamilton H. Kellogg (C), Minneapolis.
Mississippi: Duncan M. Gray, Jackson.
Missouri: Arthur C. Lichtenberger, St. Louis.
Montana: Henry H. Daniels, Helena.
Nebraska: Howard R. Brinker, Omaha.
Nevada: William F. Lewis (M), Reno.
New Hampshire: Charles F. Hall, Concord.
New Jersey: Alfred L. Banyard, Trenton.
New Mexico and Southwest Texas: James M. Stoney, Charles J. Kinsolving III (C), Albuquerque, N. Mex.
New York: Horace W. B. Donegan, Charles F. Boynton (S), New York City.
Newark (N. J.): Benjamin M. Washburn, Leland W. F. Stark (C).
North Carolina: Edwin A. Penick, Raleigh; Richard H. Baker (C), Greensboro.
North Dakota: Richard Emery, Fargo.
North Texas: George H. Quarterman (M), Amarillo.
Northern Indiana: Reginald Mallett, South Bend.
Northern Michigan: Herman R. Page, Menominee.
Ohio: Nelson M. Burroughs, Cleveland.
Oklahoma: Chilton Powell, Oklahoma City.
Olympia (Wash.): Stephen F. Bayne, Jr., Seattle.
Oregon: Benjamin D. Dagwell, Portland.
Panama Canal Zone: Reginald H. Gooden (M), Ancon.
Pennsylvania: Oliver J. Hart, Joseph G. Armstrong (S), Philadelphia.
Philippines: Norman S. Binsted (M), Lyman C. Ogilby (S), Manila.
Pittsburgh: Austin Pardue, William S. Thomas (S).
Puerto Rico: Albert E. Swift, Santurce.
Quincy (Ill.): William L. Essex, Peoria.
Rhode Island: John S. Higgins, Providence, R. I.
Rochester (N. Y.): Dudley S. Stark.
Sacramento (Calif.): A. W. Noel Porter.
Salina (Kans.): Shirley H. Nichols (M).
San Joaquin (Calif.): Sumner F. D. Walters (M), Stockton.
South Carolina: Thomas N. Carruthers, Charleston.

South Dakota: Conrad H. Gesner (M), Sioux Falls.
South Florida: Henry I. Louttit, Martin J. Bram (S), Orlando.
Southern Brazil: Athalicio T. Pithan (M), Porto Alegre.
Southern Ohio: Henry W. Hobson, Cincinnati.
Southern Virginia: George P. Gunn, Norfolk.
Southwestern Brazil: Egmont M. Krischke (M), Santa Maria.
Southwestern Virginia: William H. Marmion, Roanoke.
Spokane (Wash.): Russell S. Hubbard (M).
Springfield (Ill.): Charles A. Clough.
Tennessee: Theodore N. Barth, John Vander Horst (S), Memphis.
Texas: John E. Hines, F. Percy Goddard (S), Austin.
Upper Carolina: Clarence A. Cole; Columbia, S. C.
Utah: Richard S. Watson, Salt Lake City.
Vermont: Vedder Van Dyck, Burlington.
Virginia: Frederick D. Goodwin, Robert F. Gibson (C) Richmond.
Washington (D. C.): Angus Dun.
West Missouri: Edward R. Welles, Grandview.
West Texas: Everett H. Jones, R. Earl Dicus (S), San Antonio.
West Virginia: Wilburn C. Campbell, Charleston.
Western Carolina: M. George Henry, Asheville, N. C.
Western Massachusetts: William A. Lawrence, Springfield.
Western Michigan: Dudley B. McNeil, Grand Rapids.
Western New York: Lauriston L. Scaife, Buffalo.
Wyoming: James W. Hunter, Laramie.

Bishops of The Methodist Church

Source: Methodist Information, New York City.

Raymond L. Archer; Singapore, Malaya.
Sante Uberto Barbieri; Buenos Aires, Argentina.
Newell S. Booth; Elisabethville, Bel. Congo.
J. W. E. Bowen; Atlanta, Ga.
John W. Branscomb; Jacksonville, Fla.
Charles W. Brashares; Chicago, Ill.
Matthew W. Clair, Jr.; St. Louis, Mo.
D. Stanley Coors; St. Paul, Minn.
Fred P. Corson; Philadelphia, Pa.
Dana Dawson; Topeka, Kans.
F. Gerald Ensley; Des Moines, Iowa.
Marvin A. Franklin; Jackson, Miss.
Paul N. Garber; Richmond, Va.
A. Raymond Grant; Portland, Oreg.
Odd Hagen; Stockholm, Sweden.
Costen J. Harrell; Charlotte, N. C.
Ivan Lee Holt; St. Louis, Mo.
Gerald Kennedy; Los Angeles, Calif.
Willis J. King; New Orleans, La.
W. Earl Ledden; Syracuse, N. Y.
John Wesley Lord; Boston, Mass.
Edgar A. Love; Baltimore, Md.
Paul E. Martin; Little Rock, Ark.
William C. Martin; Dallas, Tex.
Shot K. Mondol; Hyderabad, India.
Arthur J. Moore; Atlanta, Ga.
Frederick B. Newell; New York, N. Y.
H. Clifford Northcott; Madison, Wis.
G. Bromley Oxnam; Washington, D. C.
Glenn R. Phillips; Denver, Colo.
J. Waskom Pickett; Delhi, India.
Clare Purcell; Birmingham, Ala.
Richard C. Raines; Indianapolis, Ind.
Marshall R. Reed; Detroit, Mich.
Clement D. Rockey; Lucknow, India.
Julio Manuel Sabanes; Santiago, Chile.
Roy H. Short; Nashville, Tenn.
Ferdinand Sigg, Zürich, Switzerland.
A. Frank Smith; Houston, Tex.
W. Angie Smith; Oklahoma City, Okla.
John A. Subhan; Bombay, India.
Donald H. Tippett; San Francisco, Calif.
José Valencia; Manila, Philippines.
Edwin E. Voigt; Aberdeen, S. Dak.
Ralph A. Ward; Hong Kong.
William T. Watkins; Louisville, Ky.
H. Bascom Watts; Lincoln, Nebr.
Hazen G. Werner; Columbus, Ohio.
Lloyd C. Wicke; Pittsburgh, Pa.
Friedrich Wunderlich; Frankfurt, Germany.

Roman Catholic Hierarchy of the U. S.

Source: National Catholic Welfare Conference, Washington, D. C.

(Note: A—Auxiliary; C—Coadjutor. Archbishops are shown in boldface type, Bishops in lightface. An Archbishop heading a diocese is called an "Archbishop ad Personam"; i.e., he bears the personal title of Archbishop. The Apostolic Delegate to the U. S. is Archbishop Amleto Giovanni Cicognani.)

Archdioceses

Baltimore, Md.: Francis P. Keough; Jerome D. Sebastian (A).
Boston, Mass.: **Richard J. Cushing;** Eric F. MacKenzie (A); Jeremiah E. Minihan (A).
Chicago, Ill.: Samuel Cardinal Stritch; Bernard J. Sheil (A); **Wm. D. O'Brien** (A).
Cincinnati, Ohio: Karl J. Alter; Clarence G. Issenmann (A).
Denver, Colo.: **Urban J. Vehr.**
Detroit, Mich.: **Edward Cardinal Mooney;** A. M. Zaleski (A); H. E. Donnelly (A); J. A. Donovan (A).
Dubuque, Iowa: **Leo Binz; Henry P. Rohlman** (C); Loras T. Lane (A).
Hartford, Conn.: **Henry J. O'Brien;** John F. Hackett (A).
Indianapolis, Ind.: Paul C. Schulte.
Kansas City, Kans.: **Edward J. Hunkeler.**

Los Angeles, Calif.: **James Francis Cardinal McIntyre**; Joseph T. McGucken (A); Timothy Manning (A).
Louisville, Ky.: **John A. Floersh**; Charles G. Maloney (A).
Milwaukee, Wis.: **Albert G. Meyer**; Roman R. Atkielski (A).
Newark, N. J.: **Thomas A. Boland**; Justin J. McCarthy (A).
New Orleans, La.: **Joseph F. Rummel**; L. Abel Caillouet (A).
New York, N. Y.: **Francis Cardinal Spellman**; Stephen J. Donahue (A); Joseph P. Donahue (A); Joseph F. Flannelly (A); Fulton J. Sheen (A); Edward V. Dargin (A); Joseph M. Pernicone (A); Raymond A. Lane; Paul Yu Pin.
Omaha, Nebr.: **Gerald T. Bergan.**
Philadelphia, Pa.: **John F. O'Hara, C.S.C.**; Joseph C. McCormick (A); Joseph McShea (A).
Portland, Oreg.: **Edward D. Howard.**
St. Louis, Mo.: **Joseph E. Ritter**; Leo C. Byrne (A); Charles H. Helmsing (A).
St. Paul, Minn.: **John G. Murray**; James J. Byrne (A).
San Antonio, Tex.: **Robert E. Lucey.**
San Francisco, Calif.: **John J. Mitty**; Hugh A. Donohoe (A); Merlin J. Guilfoyle (A).
Santa Fe, N. Mex.: **Edwin V. Byrne.**
Seattle, Wash.: **Thomas A. Connolly.**
Washington, D. C.: **Patrick A. O'Boyle**; John M. McNamara (A); Brian J. McEntegart; Michael J. Keyes.

Dioceses

Alaska (vicariate): Francis D. Gleeson, S.J., Vicar Apostolic.
Albany, N. Y.: William A. Scully.
Alexandria, La.: Charles P. Greco.
Altoona, Pa.: Richard T. Guilfoyle.
Amarillo, Tex.: Lawrence J. FitzSimon.
Austin, Tex.: Louis J. Reicher.
Bahamas (Vicariate): Paul L. Hagerty, O.S.B., Vicar Apostolic.
Baker City, Oreg.: Francis P. Leipzig.
Belleville, Ill.: Albert R. Zuroweste.
Bismarck, N. Dak.: Lambert A. Hoch.
Boise, Idaho: Edward J. Kelly.
Bridgeport, Conn.: Lawrence J. Shehan.
Brooklyn, N. Y.: **Thomas E. Molloy**; Raymond Kearney (A); J. J. Bordman (A); Edmund J. Reilly (A).
Buffalo, N. Y.: Joseph A. Burke; Leo R. Smith (A).
Burlington, Vt.: E. F. Ryan; R. F. Joyce (A).
Camden, N. J.: Bartholomew J. Eustace.
Caroline-Marshall Islands (vicariate): Thomas J. Feeney, S.J.
Charleston, S. C.: John J. Russell.
Cheyenne, Wyo.: Hubert M. Newell.
Cleveland, Ohio: **Edward F. Hoban**; Floyd L. Begin (A); John J. Krol (A).
Columbus, Ohio: Michael J. Ready; Edward G. Hettinger (A).
Corpus Christi, Tex.: Mariano S. Garriga.
Covington, Ky.: William T. Mulloy.
Crookston, Minn.: Francis J. Schenk.
Dallas-Ft. Worth, Tex.: Thomas K. Gorman; Augustine Danglmayr (A).
Davenport, Iowa: Ralph L. Hayes.
Des Moines, Iowa: Edward C. Daly, O.P.
Dodge City, Kans.: John B. Franz.
Duluth, Minn.: Thomas A. Welch.
El Paso, Tex.: Sidney M. Metzger.
Erie, Pa.: John M. Gannon; Edward P. McManaman (A).
Evansville, Ind.: Henry J. Grimmelsman.
Fall River, Mass.: James L. Connolly.
Fargo, N. Dak.: **Aloysius J. Muench**; Leo F. Dworschak (A).
Fort Wayne, Ind.: **John F. Noll**; Leo A. Pursley (A).
Gallup, N. Mex.: Bernard T. Espelage, O.F.M.
Galveston, Tex.: Wendelin J. Nold.
Grand Island, Nebr.: John L. Paschang.
Grand Rapids, Mich.: Allen J. Babcock.
Great Falls, Mont.: William J. Condon.
Green Bay, Wis.: Stanislaus V. Bona; John B. Grellinger (A).
Greensburg, Pa.: Hugh L. Lamb.
Guam (vicariate): Apollinaris W. Baumgartner, O.F.M. Cap., Vicar Apostolic.
Harrisburg, Pa.: George L. Leech.
Helena, Mont.: Joseph M. Gilmore.
Honolulu: J. J. Sweeney; J. J. Scanlan (A).
Jamaica (Vicariate): John J. McEleney, S.J., Vicar Apostolic.
Joliet, Ill.: Martin D. McNamara.
Juneau, Alaska: Dermot O'Flanagan.
Kansas City, Mo.: **Edwin V. O'Hara**; Joseph Marling, C.Pp.S. (A).
La Crosse, Wis.: John P. Treacy.
Lafayette, Ind.: John G. Bennett.
Lafayette, La.: Jules B. Jeanmard; Maurice Schexnayder (A).
Lansing, Mich.: Joseph H. Albers.
Lincoln, Nebr.: Louis B. Kucera.
Little Rock, Ark.: Albert L. Fletcher.
Madison, Wis.: William P. O'Connor.
Manchester, N. H.: Matthew F. Brady.
Marquette, Mich.: Thomas L. Noa.
Mobile-Birmingham, Ala.: **T. J. Toolen.**
Monterey-Fresno, Calif.: Aloysius J. Willinger, C.Ss.R.
Nashville, Tenn.: William L. Adrian.
Natchez, Miss.: Richard O. Gerow.
Norwich, Conn.: Bernard J. Flanagan.
Ogdensburg, N. Y.: Walter P. Kellenberg.
Oklahoma City-Tulsa, Okla.: Eugene J. McGuinness.
Owensboro, Ky.: Francis R. Cotton.
Paterson, N. J.: James A. McNulty.
Peoria, Ill.: William E. Cousins.
Pittsburgh, Pa.: John F. Dearden; Coleman F. Carroll (A).
Ponce, P. R.: James E. McManus, C.SS.R.
Portland, Maine: Joseph E. McCarthy; Daniel J. Feeney (C).
Providence, R. I.: Russell J. McVinney.
Pueblo, Colo.: Joseph C. Willging.
Raleigh, N. C.: Vincent S. Waters; James J. Navagh (A).

Rapid City, S. Dak.: William T. McCarty, C.Ss.R.
Reno, Nev.: Robert J. Dwyer.
Richmond, Va.: Peter L. Ireton; Joseph H. Hodges (A).
Rochester, N. Y.: James E. Kearney; Lawrence B. Casey (A).
Rockford, Ill.: Raymond P. Hillinger.
Sacramento, Calif.: Robert J. Armstrong.
Saginaw, Mich.: Stephen S. Woznicki
St. Augustine, Fla.: Joseph P. Hurley; Thomas J. McDonough (A).
St. Cloud, Minn.: Peter W. Bartholome.
St. Joseph, Mo.: Charles H. Le Blond; John P. Cody (C).
Salina, Kans.: Frank A. Thill.
Salt Lake City, Utah: Duane G. Hunt; J. Lennox Federal (A).
San Diego, Calif.: Charles F. Buddy.
San Juan, P. R.: James P. Davis.
Savannah-Atlanta, Ga.: Gerald P. O'Hara; Francis E. Hyland (A).
Scranton, Pa.: Jerome D. Hannan; Henry T. Klonowski (A).
Sioux City, Iowa: Joseph M. Mueller.
Sioux Falls, S. Dak.: William O. Brady.
Spokane, Wash.: Charles D. White.
Springfield, Ill.: William A. O'Connor.
Springfield, Mass.: Christopher J. Weldon.
Steubenville, Ohio: John K. Mussio.
Superior, Wis.: Joseph J. Annabring.
Syracuse, N. Y.: Walter A. Foery; David F. Cunningham (A).
Toledo, Ohio: George J. Rehring.
Trenton, N. J.: George W. Ahr.
Tucson, Ariz.: Daniel J. Gercke; Francis J. Green (A).
Wheeling, W. Va.: John J. Swint; Thomas J. McDonnell (C).
Wichita, Kans.: Mark K. Carroll.
Wilmington, Del.: Edmond J. Fitzmaurice.
Winona, Minn.: Edward A. Fitzgerald.
Worcester, Mass.: John J. Wright.
Yakima, Wash.: Joseph P. Dougherty.
Youngstown, Ohio: Emmet M. Walsh.
Military Ordinariate: Francis Cardinal Spellman, Military Vicar; William Arnold, Military Delegate; James H. Griffiths, Chancellor.
Belmont, N. C. (Abbacy Nullius): Vincent G. Taylor, O.S.B. (Abbot).
Philadelphia, Pa. (Byzantine Rite): Constantine Bohachevsky; Ambrose A. Senyshyn, O.S.B.M. (A).
Pittsburgh, Pa. (Greek Rite): Nicholas T. Elko.

The College of Cardinals

Cardinal Bishops

Year of creation	Name	Office or dignity	Nationality
1936	Eugene Tisserant	Bishop of Ostia, Porto, and Santa Rufina; Dean of the Sacred College of Cardinals; Secretary of the Sacred Congregation for the Oriental Church	French
1946	Clemente Micara	Bishop of Velletri; Vicar General of Rome; Prefect of the Sacred Congregation of the Affairs of Religious	Italian
1937	Giuseppe Pizzardo	Bishop of Albano; Secretary of the Supreme Sacred Congregation of the Holy Office; Prefect of the Sacred Congregation of Seminaries and Universities	Italian
1946	Benedetto Aloisi Masella	Bishop of Palestrina; Prefect of the Sacred Congregation of the Sacraments; Archpriest of St. John Lateran's Basilica	Italian
1937	Adeodato Giovanni Piazza, O. C. D.	Bishop of Sabina; Secretary of the Sacred Consistorial Congregation	Italian
1933	Federico Tedeschini	Bishop of Frascati; Archpriest of St. Peter's Basilica; Prefect of the Sacred Congregation of the Basilica of St. Peter; Apostolic Datary	Italian

Cardinal Priests

1925	Alessandro Verde	Archpriest of Liberian Patriarchal Basilica of St. Mary Major	Italian
1927	Joseph Ernest Van Roey	Archbishop of Malines	Belgian
1927	Pedro Segura y Saenz	Archbishop of Sevilla	Spanish

1929	Emanuel Goncalves Cerejeira	Patriarch of Lisbon	Portuguese
1930	Achilles Lienart	Bishop of Lille	French
1933	Pietro Fumasoni-Biondi	Prefect of the Sacred Congregation for the Propagation of the Faith	Italian
1933	Maurilio Fossati	Archbishop of Turin	Italian
1933	Elia dalla Costa	Archbishop of Florence	Italian
1933	Theodore Innitzer	Archbishop of Vienna	Austrian
1935	Ignazio Tappouni	Syrian Patriarch of Antioch	Iraqian
1935	Santiago Copello	Archbishop of Buenos Aires	Argentine
1937	Pierre Marie Gerlier	Archbishop of Lyon	French
1946	Gregory Peter XV Agagianian	Patriarch of Cilicia of the Armenias	Transcaucasian
1946	Edward Mooney	Archbishop of Detroit	American
1946	Jules Saliège	Archbishop of Toulouse	French
1946	James McGuigan	Archbishop of Toronto	Canadian
1946	Samuel A. Stritch	Archbishop of Chicago	American
1946	Emile Roques	Archbishop of Rennes	French
1946	Carlo Carmelo de Vasconcellos Mota	Archbishop of São Paulo	Brazilian
1946	Norman Gilroy	Archbishop of Sydney	Australian
1946	Francis J. Spellman	Archbishop of New York	American
1946	José María Caro Rodríguez	Archbishop of Santiago	Chilean
1946	Teodosio Clemente de Gouveia	Archbishop of Lourenço Marques, Mozambique	Portuguese
1946	Jaime de Barros Camara	Archbishop of Rio de Janeiro; Ordinary for Oriental Catholics in Brazil	Brazilian
1946	Enrique Pla y Deniel	Archbishop of Toledo and Primate of Spain	Spanish
1946	Manuel Arteaga y Betancourt	Archbishop of Havana	Cuban
1946	Joseph Frings	Archbishop of Cologne	German
1946	Bernard Griffin	Archbishop of Westminster	English
1946	Jozsef Mindszenty	Archbishop of Esztergom and Primate of Hungary	Hungarian
1946	Ernesto Ruffini	Archbishop of Palermo	Italian
1946	Antonio Caggiano	Bishop of Rosario	Argentine
1946	Thomas Tien, S. V. D.	Archbishop of Peiping	Chinese
1953	Celso Costantini	Secretary of the Sacred Congregation for the Propagation of the Faith; Chancellor of the Holy Roman Church	Italian
1953	Augusto Alvaro da Silva	Archbishop of San Salvador in Baia	Brazilian
1953	Gaetano Cicognani	Prefect of Sacred Congregation of Rites; Pro-Prefect of the Apostolic Signature	Italian
1953	Angelo G. Roncalli	Patriarch of Venice	Italian
1953	Valerio Valeri	Prefect of Sacred Congregation of Affairs of Religious	Italian
1953	Pietro Ciriaci	Prefect of Sacred Congregation of the Council	Italian
1953	Maurice Feltin	Archbishop of Paris	French

953	Marcello Mimmi	Archbishop of Naples	Italian
953	Carlos Maria de la Torre	Archbishop of Quito	Ecuadorian
953	Aloysius Stepinac	Archbishop of Zagreb	Yugoslavian
953	Georges F. X. M. Grente	Archbishop *ad personam* of Le Mans	French
953	Giuseppe Siri	Archbishop of Genoa	Italian
953	John F. D'Alton	Archbishop of Armagh, Primate of all Ireland	Irish
953	James Francis McIntyre	Archbishop of Los Angeles	American
953	Giacomo Lercaro	Archbishop of Bologna	Italian
953	Stefan Wyszynski	Archbishop of Gniezno and Warsaw	Polish
953	Benjamin de Arriba y Castro	Archbishop of Tarragona	Spanish
953	Fernando Quiroga y Palacios	Archbishop of Santiago di Compostela	Spanish
953	Paul Émile Leger, S.S.	Archbishop of Montreal	Canadian
953	Crisanto Luque	Archbishop of Bogotá, Primate of Colombia	Colombian
953	Valerian Gracias	Archbishop of Bombay	Indian
953	Josef Wendel	Archbishop of Munich and Freising	German

Cardinal Deacons

935	Nicola Canali	Grand Penitentiary; President of the Commission charged with the Administration of Vatican City	Italian
936	Giovanni Mercati	Librarian and Archivist of the Holy Roman Church	Italian
953	Alfredo Ottaviani	Pro-Secretary of the Supreme Congregation of the Holy Office	Italian

Antipopes

Antipopes were those who falsely claimed Papal Sovereignty. The dates and, in some cases, Roman numerals after the names account for occasional discrepancies in the succession of the Popes.

Name	Birthplace	Access.	End of reign
St. Hippolytus	Rome	217	235
Novatian	Rome	251	...
Felix II	Rome	355	365
Ursinus	.....	366	367
Eulalius	.....	418	419
Laurence	.....	498	501
Dioscorus	Alexandria	530	530
Theodore	.....	...	687
Paschal	.....	...	687
Constantine	Nepi	767	769
Philip	.....	768	768
John	.....	...	844
Anastasius	.....	855	855
Christopher	Rome	903	904
Boniface VII	Rome	974	974
Boniface VII (2nd time)	.....	984	985
John XVI	Rossano	997	998
Gregory	.....	...	1012
Benedict X	Rome	1058	1059
Honorius II	Verona	1061	1072
Clement III	Parma	1080	1100
Theodoric	.....	....	1100
Albert	.....	....	1102
Sylvester IV	Rome	1105	1111
Gregory VIII	France	1118	1121
Celestine II	Rome	....	1124
Anacletus II	Rome	1130	1138
Victor IV	.....	1138	1138
Victor IV*	Montecelio	1159	1164
Paschal III	.....	1164	1168
Callistus III	Arezzo	1168	1178
Innocent III	Sezze	1179	1180
Nicholas V	Corvaro	1328	1330
Clement VII	.....	1378	1394
Benedict XIII	Aragon	1394	1423
Alexander V	Crete	1409	1410
John XXIII	Naples	1410	1415
Felix V	.....	1439	1449

* Did not recognize his predecessor of 1138, who, only two months after claiming the Papacy, submitted to the rightful Pope, Innocent II.

Roman Catholic Pontiffs

Source for Catholic information: The National Catholic Almanac.

St. Peter, of Bethsaida in Galilee, Prince of the Apostles, was the first Pope. He resided first in Antioch and then for twenty-five years in Rome, where he suffered martyrdom in 64 or 67 of the modern era. He was followed by St. Linus.

Name	Birthplace	Acces.	End of reign
St. Linus	Tuscia	67	76
St. Anacletus (Cletus)	Rome	76	88
St. Clement	Rome	88	97
St. Evaristus	Greece	97	105
St. Alexander I	Rome	105	115
St. Sixtus I	Rome	115	125
St. Telesphorus	Greece	125	136
St. Hyginus	Greece	136	140
St. Pius I	Aquileia	140	155
St. Anicetus	Syria	155	166
St. Soter	Campania	166	175
St. Eleutherius	Epirus	175	189
St. Victor I	Africa	189	199
St. Zephyrinus	Rome	199	217
St. Callistus I	Rome	217	222
St. Urban I	Rome	222	230
St. Pontian	Rome	230	235
St. Anterus	Greece	235	236
St. Fabian	Rome	236	250
St. Cornelius	Rome	251	253
St. Lucius I	Rome	253	254
St. Stephen I	Rome	254	257
St. Sixtus II	Greece	257	258
St. Dionysius	Unknown	259	268
St. Felix I	Rome	269	274
St. Eutychian	Luni	275	283
St. Caius	Dalmatia	283	296
St. Marcellinus	Rome	296	304
St. Marcellus I	Rome	308	309
St. Eusebius	Greece	309	309
St. Melchiades	Africa	311	314
St. Sylvester I	Rome	314	335
St. Marcus	Rome	336	336
St. Julius I	Rome	337	352
St. Liberius	Rome	352	366
St. Damasus I	Spain	366	384
St. Siricius	Rome	384	399
St. Anastasius I	Rome	399	401
St. Innocent I	Albano	401	417
St. Zozimus	Greece	417	418
St. Boniface I	Rome	418	422
St. Celestine I	Campania	422	432
St. Sixtus III	Rome	432	440
St. Leo I (the Great)	Tuscia	440	461
St. Hilary	Sardo	461	468
St. Simplicius	Tivoli	468	483
St. Felix III (II)	Rome	483	492
St. Gelasius I	Africa	492	496
Anastasius II	Rome	496	498
St. Symmachus	Sardo	498	514
St. Hormisdas	Frosinone	514	523
St. John I	Tuscia	523	526
St. Felix IV (III)	Sannio	526	530
Boniface II	Rome	530	532
John II	Rome	533	535
St. Agapitus I	Rome	535	536
St. Silverius	Campania	536	537
Vigilius	Rome	537	555
Pelagius I	Rome	556	561
John III	Rome	561	574
Benedict I	Rome	575	579
Pelagius II	Rome	579	590
St. Gregory I (the Great)	Rome	590	604
Sabinianus	Tuscia	604	606
Boniface III	Rome	607	607
St. Boniface IV	Marsi	608	615
St. Deusdedit (Adeodatus I)	Rome	615	618
Boniface V	Naples	619	625
Honorius I	Campania	625	638
Severinus	Rome	640	640
John IV	Dalmatia	640	642
Theodore I	Greece	642	649
St. Martin I	Todi	649	655
St. Eugenius I	Rome	654	657
St. Vitalian	Segni	657	672
Adeodatus II	Rome	672	676
Donus	Rome	676	678
St. Agatho	Sicily	678	681
St. Leo II	Sicily	682	683
St. Benedict II	Rome	684	685
John V	Syria	685	686
Conon	Unknown	686	687
St. Sergius I	Syria	687	701
John VI	Greece	701	705
John VII	Greece	705	707
Sisinnius	Syria	708	708
Constantine	Syria	708	715
St. Gregory II	Rome	715	731
St. Gregory III	Syria	731	741
St. Zachary	Greece	741	752
Stephen II	Rome	752	752
Stephen III	Rome	752	757
St. Paul I	Rome	757	767
Stephen IV	Sicily	768	772
Adrian I	Rome	772	795
St. Leo III	Rome	795	816
Stephen V	Rome	816	817
St. Paschal I	Rome	817	824
Eugenius II	Rome	824	827
Valentine	Rome	827	827
Gregory IV	Rome	827	844
Sergius II	Rome	844	847
St. Leo IV	Rome	847	855
Benedict III	Rome	855	858
St. Nicholas	Rome	858	867
Adrian II	Rome	867	872
John VIII	Rome	872	882
Marinus I	Gallese	882	884
St. Adrian III	Rome	884	885
Stephen VI	Rome	885	891
Formosus	Portus	891	896
Boniface VI	Rome	896	896
Stephen VII	Rome	896	897
Romanus	Gallese	897	897
Theodore II	Rome	897	897
John IX	Tivoli	898	900
Benedict IV	Rome	900	903
Leo V	Ardea	903	903
Sergius III	Rome	904	911
Anastasius III	Rome	911	913
Landus	Sabina	913	914
John X	Tossignano	914	928
Leo VI	Rome	928	928
Stephen VIII	Rome	928	931
John XI	Rome	931	935
Leo VII	Rome	936	939
Stephen IX	Rome	939	942
Marinus II	Rome	942	946

Name	Birthplace	Acces.	End of reign
Agapitus II	Rome	946	955
John XII	Tusculum	955	964
Leo VIII	Rome	963	965
Benedict V	Rome	964	966
John XIII	Rome	965	972
Benedict VI	Rome	973	974
Benedict VII	Rome	974	983
John XIV	Pavia	983	984
John XV	Rome	985	996
Gregory V	Saxony	996	999
Sylvester II	Alvernia	999	1003
John XVII	Rome	1003	1003
John XVIII	Rome	1004	1009
Sergius IV	Rome	1009	1012
Benedict VIII	Tusculum	1012	1024
John XIX	Tusculum	1024	1032
Benedict IX*	Tusculum	1032	1044
Sylvester III	Rome	1045	1045
Benedict IX (2nd time)	....	1045	1045
Gregory VI	Rome	1045	1046
Clement II	Saxony	1046	1047
Benedict IX (3rd time)	....	1047	1048
Damasus II	Bavaria	1048	1048
St. Leo IX	Egisheim-Dagsburg	1049	1054
Victor II	Dollnstein-Hirschberg	1055	1057
Stephen X	Lorraine	1057	1058
Nicholas II	Burgundy	1059	1061
Alexander II	Milan	1061	1073
St. Gregory VII	Tuscia	1073	1085
Bl. Victor III	Benevento	1086	1087
Bl. Urban II	France	1088	1099
Paschal II	Ravenna	1099	1118
Gelasius II	Gaeta	1118	1119
Callistus II	Burgundy	1119	1124
Honorius II	Fiagnano	1124	1130
Innocent II	Rome	1130	1143
Celestine II	Città di Castello	1143	1144
Lucius II	Bologna	1144	1145
Bl. Eugene III	Pisa	1145	1153
Anastasius IV	Rome	1153	1154
Adrian IV	England	1154	1159
Alexander III	Siena	1159	1181
Lucius III	Lucca	1181	1185
Urban III	Milan	1185	1187
Gregory VIII	Benevento	1187	1187
Clement III	Rome	1187	1191
Celestine III	Rome	1191	1198
Innocent III	Anagni	1198	1216
Honorius III	Rome	1216	1227
Gregory IX	Anagni	1227	1241
Celestine IV	Milan	1241	1241
Innocent IV	Genoa	1243	1254
Alexander IV	Anagni	1254	1261
Urban IV	Troyes	1261	1264
Clement IV	France	1265	1268
Bl. Gregory X	Piacenza	1271	1276
Bl. Innocent V	Savoy	1276	1276
Adrian V	Genoa	1276	1276
John XXI	Portugal	1276	1277
Nicholas III	Rome	1277	1280
Martin IV	France	1281	1285
Honorius IV	Rome	1285	1287
Nicholas IV	Ascoli	1288	1292
St. Celestine V	Isernia	1294	1294
Boniface VIII	Anagni	1294	1303
Bl. Benedict XI	Treviso	1303	1304
Clement V	France	1305	1314
John XXII	Cahors	1316	1334
Benedict XII	France	1334	1342
Clement VI	France	1342	1352
Innocent VI	France	1352	1362
Bl. Urban V	France	1362	1370
Gregory XI	France	1370	1378
Urban VI	Naples	1378	1389
Boniface IX	Naples	1389	1404
Innocent VII	Sulmona	1404	1406
Gregory XII	Venetia	1406	1415
Martin V	Rome	1417	1431
Eugene IV	Venetia	1431	1447
Nicholas V	Sarzana	1447	1455
Callistus III	Valencia	1455	1458
Pius II	Siena	1458	1464
Paul II	Venetia	1464	1471
Sixtus IV	Savona	1471	1484
Innocent VIII	Genoa	1484	1492
Alexander VI	Valencia	1492	1503
Pius III	Siena	1503	1503
Julius II	Savona	1503	1513
Leo X	Florence	1513	1521
Adrian VI	Utrecht	1522	1523
Clement VII	Florence	1523	1534
Paul III	Rome	1534	1549
Julius III	Rome	1550	1555
Marcellus II	Montepulciano	1555	1555
Paul IV	Naples	1555	1559
Pius IV	Milan	1559	1565
St. Pius V	Bosco	1566	1572
Gregory XIII	Bologna	1572	1585
Sixtus V	Grottammare	1585	1590
Urban VII	Rome	1590	1590
Gregory XIV	Cremona	1590	1591
Innocent IX	Bologna	1591	1591
Clement VIII	Florence	1592	1605
Leo XI	Florence	1605	1605
Paul V	Rome	1605	1621
Gregory XV	Bologna	1621	1623
Urban VIII	Florence	1623	1644
Innocent X	Rome	1644	1655
Alexander VII	Siena	1655	1667
Clement IX	Pistoia	1667	1669
Clement X	Rome	1670	1676
Innocent XI	Como	1676	1689
Alexander VIII	Venetia	1689	1691
Innocent XII	Naples	1691	1700
Clement XI	Urbino	1700	1721
Innocent XIII	Rome	1721	1724
Benedict XIII	Rome	1724	1730
Clement XII	Florence	1730	1740
Benedict XIV	Bologna	1740	1758
Clement XIII	Venetia	1758	1769
Clement XIV	Rimini	1769	1774
Pius VI	Cesena	1775	1799
Pius VII	Cesena	1800	1823
Leo XII	Fabriano	1823	1829
Pius VIII	Cingoli	1829	1830
Gregory XVI	Belluno	1831	1846
Pius IX	Senigallia	1846	1878
Leo XIII	Carpineto	1878	1903
St. Pius X	Riese	1903	1914
Benedict XV	Genoa	1914	1922
Pius XI	Desio	1922	1939
Pius XII	Rome	1939	

* If the triple removal of Benedict IX was not valid, Sylvester III, Gregory VI and Clement II were antipopes.

NOTE: This list of Popes, adapted from the *Annuario Pontificio*, is in accordance with the recent revisions made by Monsignor Mercati, Prefect of the Vatican's archives. All Popes before Sylvester I are listed as martyrs; other martyrs were: St. John I, St. Silverius and St. Martin I. The accession year is that during which the Pope was elected.

Archbishops of Canterbury

Sequence	Name	Created
1	Augustine (consecrated Bishop 597)	601
2	Laurentius	604
3	Mellitus	619
4	Justus	624
5	Honorius	627
6	Deusdedit	655
7	Theodorus	668
8	Beorhtweald	693
9	Tatwine	731
10	Nothelm	735
11	Cuthbeorht	740
12	Breguwine	761
13	Jaenbeorht	765
14	Æthelheard	793
15	Wulfred	805
16	Feologild	832
17	Ceolnoth	833
18	Æthelred	870
19	Plegmund	890
20	Æthelhelm	914
21	Wulfhelm	923
22	Oda	942
23	Ælfsige	959
24	Beorhthelm	959
25	Dunstan	960
26	Æthelgar	988
27	Sigeric Serio	990
28	Ælfric	995
29	Ælfheah	1005
30	Lyfing	1013
31	Æthelnoth	1020
32	Eadsige	1038
33	Robert (Champart) of Jumièges	1051
34	Stigand	1052
35	Lanfranc	1070
36	Anselm	1093
37	Ralph d'Escures	1114
38	William de Corbeil	1123
39	Theobald	1139
40	Thomas Becket	1162
41	Richard (of Dover)	1174
42	Baldwin	1185
43	Hubert Walter	1193
44	Stephen Langton	1207
45	Richard le Grant (of Wetharshed)	1229
46	Edmund Rich	1234
47	Boniface of Savoy	1245
48	Robert Kilwardby	1273
49	John Pecham (Peckham)	1279
50	Robert Winchelsey	1294
51	Walter Reynolds	1313
52	Simon Mepeham	1328
53	John Stratford	1333
54	Thomas Bradwardine	1349
55	Simon Islip	1349
56	Simon Langham	1366
57	William Whittlesey	1368
58	Simon Sudbury	1375
59	William Courtenay	1381
60	Thomas Arundel	1396
61	Roger Walden	1398
62	Thomas Arundel (restored)	1399
63	Henry Chichele	1414
64	John Stafford	1443
65	John Kemp	1452
66	Thomas Bourchier	1454
67	John Morton	1486
68	Henry Dean	1501
69	William Warham	1503
70	Thomas Cranmer	1533
71	Reginald Pole	1556
72	Matthew Parker	1559
73	Edmund Grindal	1576
74	John Whitgift	1583
75	Richard Bancroft	1604
76	George Abbot	1611
77	William Laud	1633
78	William Juxon	1660
79	Gilbert Sheldon	1663
80	William Sancroft	1678
81	John Tillotson	1691
82	Thomas Tenison	1695
83	William Wake	1716
84	John Potter	1737
85	Thomas Herring	1747
86	Matthew Hutton	1757
87	Thomas Secker	1758
88	Frederick Cornwallis	1768
89	John Moore	1783
90	Charles Manners-Sutton	1805
91	William Howley	1828
92	John Bird Sumner	1848
93	Charles Thomas Longley	1862
94	Archibald Campbell Tait	1868
95	Edward White Benson	1883
96	Frederick Temple	1896
97	Randall Thomas Davidson	1903
98	Cosmo Gordon Lang	1928
99	William Temple	1942
100	Geoffrey Francis Fisher	1945

(NOTE: Anglicans consider the line of Archbishops unbroken from Augustine to the present day. Roman Catholics consider the office vacant since 1558, the death of Pole.)

History of the Christian Church in England

5th century Arrival in England of Angles, Saxons and Jutes. Church isolated from Rome.

597 Augustine sent to convert Saxons.

1534 Act of Supremacy makes king head of Church of England.

1554 Church again united with Rome under reign of Mary.

1558 Church restored to Crown at accession of Elizabeth.

1611 King James version of Bible.

1646 Puritan rebellion. Presbyterianism becomes state religion.

1660 Restoration. Power of Church of England restored under Charles II.

1739 John Wesley founds Methodism.

1829 Catholic emancipation.

1833–45 Oxford Movement attempts to bring Church of England closer to ideals of ancient Church. This movement continues as important influence.

Jewish Congregational and Rabbinical Organizations

Central Conference of American Rabbis: 40 W. 68th St., New York 23, N. Y.

Rabbinical Alliance of America: 141 So. 3rd St., Brooklyn 11, N. Y.

Rabbinical Assembly of America: 3080 Broadway, New York 27, N. Y.

Rabbinical Council of America, Inc.: 331 Madison Ave., New York 17, N. Y.

Synagogue Council of America: 110 W. 42nd St., New York 36, N. Y.

Union of American Hebrew Congregations: 838 Fifth Ave., New York 21, N. Y.

Union of Ethiopian Hebrew Congregations and Rabbis: 550 Fifth Ave., New York 36, N. Y.

Union of Orthodox Rabbis of the U. S. and Canada: 132 Nassau St., New York 38, N. Y.

United Synagogue of America: 3080 Broadway, New York 27, N. Y.

Union of Orthodox Jewish Congregations of America: 305 Bdwy., New York 7, N. Y.

Religious and Secular Holidays, 1956

NEW YEAR'S DAY—Sunday, Jan. 1—A legal holiday in all states and the District of Columbia, New Year's Day has its origin in Roman times, when sacrifices were offered to Janus, the two-faced Roman deity who looked back on the past and forward to the future.

EPIPHANY—Friday, Jan. 6—Falls the twelfth day after Christmas and commemorates the manifestation of Jesus as the Son of God, as represented by the adoration of the Magi, the baptism of Jesus, and the miracle of the wine at the marriage feast at Cana. Epiphany originally marked the beginning of the carnival season preceding Lent, and the evening (sometimes the eve) is known as Twelfth Night.

LINCOLN'S BIRTHDAY—Sunday, Feb. 12—A legal holiday in many states, this day was first formally observed in Washington, D. C., in 1866, when both houses of Congress gathered for a memorial address in honor of the late President.

ST. VALENTINE'S DAY—Tuesday, Feb. 14—This day is the festival of two 3rd-century martyrs, both named St. Valentine. It is not known why this day is associated with lovers. It may derive from an old pagan festival about this time of year, or it may have been inspired by the belief that birds mate on this day.

SHROVE TUESDAY—Feb. 14—Falls the day before Ash Wednesday and marks the end of the carnival season, which once began on Epiphany but is now usually celebrated the last three days before Lent. In France, the day is known as Mardi Gras (Fat Tuesday), and Mardi Gras celebrations are also held in several American cities, particularly in New Orleans. The day is sometimes called Pancake Tuesday by the English because of the need of using up fats which were prohibited during Lent.

ASH WEDNESDAY—Feb. 15—The first day of the Lenten season, which lasts forty days. Having its origin sometime before A.D. 1000, it is a day of public penance and is marked in the Roman Catholic Church by the burning of the palms blessed on the previous Palm Sunday. With his thumb, the priest then marks a cross upon the forehead of each worshipper. The Anglican Church and a few Protestant groups in the United States also celebrate the day, but generally without the use of ashes.

WASHINGTON'S BIRTHDAY—Wednesday, Feb. 22—The birthday of George Washington is celebrated as a legal holiday in every state of the Union (except Idaho), the District of Columbia and all territories. The observance began 1796.

ST. PATRICK'S DAY—Saturday, March 17—St. Patrick, patron saint of Ireland, has been honored in America since the first days of the nation. There are many dinners and meetings and perhaps the most notable part of the observance is the annual St. Patrick's Day parade on Fifth Avenue in New York City.

PALM SUNDAY—March 25—Is observed the Sunday before Easter to commemorate the entry of Jesus into Jerusalem. The procession and the ceremonies introducing the benediction of palms probably had their origin in Jerusalem.

FIRST DAY OF PASSOVER (Pesach)—Tuesday, Mar. 27 (Nisan 15)—The Feast of the Passover, also called the Feast of Unleavened Bread, commemorates the escape of the first-born of the Jews from the Angel of Death, who took from the Egyptians their first-born, thus fulfilling the prophecy of Moses. As the Jews fled Egypt, they ate unleavened bread, and from that time the Jews have allowed no leavening in the houses during Passover, bread being replaced by matzoth.

GOOD FRIDAY—March 30—This day commemorates the Crucifixion, which is retold during services from the Gospel according to St. John. A feature in Roman Catholic churches is the Mass of the Presanctified: there is no Consecration, the Host having been consecrated the previous day. The eating of hot cross buns on this day is said to have started in England.

EASTER SUNDAY—April 1—Observed in all Christian churches, Easter commemorates the Resurrection of Jesus. It is celebrated on the first Sunday after the full moon which occurs on or next after March 21 and is therefore celebrated be-

tween March 22 and April 25 inclusive. This date was fixed by the Council of Nicaea in 325.

ASCENSION DAY—Thursday, May 10—Took place in the presence of His apostles 40 days after the Resurrection of Jesus. It is traditionally held to have occurred on Mount Olivet in Bethany.

FIRST DAY OF SHABUOTH (Hebrew Pentecost)—Wednesday, May 16 (Sivan 6)—This festival, sometimes called the Feast of Weeks, or of Harvest, or of the First Fruits, falls fifty days after Passover and originally celebrated the end of the seven-week grain harvesting season. In later tradition, it also celebrated the giving of the Law to Moses on Mt. Sinai, and both aspects have come down to the present.

PENTECOST (Whitsunday)—May 20—This day commemorates the descent of the Holy Ghost upon the Apostles fifty days after the Resurrection. The sermon by the Apostle Peter, which led to the baptism of 3000 who professed belief, originated the ceremonies that have since been followed. "Whitsunday" is believed to have come from "white Sunday" when, among the English, white robes were worn by those baptized on the day.

MEMORIAL DAY—Wednesday, May 30—Also known as Decoration Day, Memorial Day is a legal holiday in most of the states and in the territories, and is also observed by the armed forces. In 1868, General John A. Logan, Commander in Chief of the Grand Army of the Republic, issued an order designating the day as one in which the graves of soldiers would be decorated. The holiday was originally devoted to honoring the memory of those who fell in the Civil War, but is now also dedicated to the memory of the dead of all wars.

FLAG DAY—Thursday, June 14—This day commemorates the adoption by the Continental Congress on June 14, 1777, of the Stars and Stripes as the U. S. flag. Although it is a legal holiday only in Pennsylvania, President Truman, on Aug. 3, 1949, signed a bill requesting the President to call for its observance each year by proclamation.

INDEPENDENCE DAY—Wednesday, July 4—The day of the adoption of the Declaration of Independence in 1776, celebrated in all states and territories. The observance began in the next year in the city of Philadelphia.

LABOR DAY—Monday, Sept. 3—Observed the first Monday in September in all states and territories, Labor Day was first celebrated in New York in 1882 under the sponsorship of the Central Labor Union, following the suggestion of Peter J. McGuire, of the Knights of Labor, that the day be set aside in honor of labor.

FIRST DAY OF ROSH HASHANA (Jewish New Year)—Thursday, Sept. 6 (Tishri 1)—This day marks the beginning of the Jewish year 5717 and opens the Ten Days of Penitence, closing with Yom Kippur.

YOM KIPPUR (Day of Atonement)—Saturday, Sept. 15 (Tishri 10)—This day marks the end of the Ten Days of Penitence that began with Rosh Hashana and is the holiest day of the Jewish year. It is described in *Leviticus* as the "Sabbath of Sabbaths," and synagogue services begin the preceding sundown, resume the following morning, and continue through the day to sundown.

FIRST DAY OF SUKKOTH (Feast of Tabernacles)—Thursday, Sept. 20 (Tishri 15)—This festival, also known as the Feast of the Ingathering, originally celebrated the fruit harvest, and the name comes from the booths or tabernacles in which the Jews lived during the harvest, although one tradition traces it to the shelters used by the Jews in their wandering through the wilderness. During the festival, many Jews build small huts in their back yards or on the roofs of their houses.

COLUMBUS DAY—Friday, Oct. 12—A legal holiday in many states, commemorating the discovery of America by Columbus in 1492. Quite likely the first celebration of Columbus Day was that organized in 1792 by the Society of St. Tammany, or Columbian Order, more widely known as Tammany Hall.

ELECTION DAY (in certain states)—Tuesday, Nov. 6—Since 1845, by Act of Congress, the first Tuesday after the first Monday in November is the date for choosing Presidential electors. State elections are also generally held on this day.

VETERANS DAY—Sunday, Nov. 11—Armistice Day was established in 1926 to commemorate the signing in 1918 of the Armistice ending World War I. On June 1, 1954, the name was changed to Veterans Day so as to honor all men and women who have served America in its armed forces.

THANKSGIVING—Thursday, Nov. 22—Observed nationally on the fourth Thursday in November by Act of Congress (1941), the first such national proclamation having been issued by President Lincoln in 1863, on the urging of Mrs. Sarah J. Hale, editor of *Godey's Lady's Book*. Most Americans believe that the holiday dates back to the day of thanks ordered by Governor Bradford of Plymouth Colony in New England in 1621 but scholars point out that days of thanks stem from ancient times.

FIRST DAY OF HANUKKAH (Festival of Lights)—Thursday, Nov. 29 (Kislev 25)—This festival was instituted by Judas Maccabaeus in 165 B.C. to celebrate the puri-

fication of the Temple of Jerusalem, which had been desecrated three years earlier by Antiochus Epiphanes, who set up a pagan altar and offered sacrifices to Zeus Olympius. In Jewish homes, a light is lighted the first night, and on each succeeding night of the eight-day festival, another is lighted.

FIRST SUNDAY OF ADVENT—Dec. 2—Advent is the season in which the faithful must prepare themselves for the advent of the Saviour on Christmas. The four Sundays before Christmas are marked by special church services.

CHRISTMAS (Feast of the Nativity)—Tuesday, Dec. 25—The most widely celebrated holiday of the Christian year, Christmas is observed as the anniversary of the birth of Jesus. Christmas customs are centuries old. The mistletoe, for example, comes from the Druids, who, in hanging the mistletoe, hoped for peace and good fortune. Use of such plants as holly comes from the ancient belief that such plants blossomed at Christmas. Comparatively recent is the Christmas tree, first set up in Germany in the 17th century, and the use of candles on trees developed from the belief that candles appeared by miracle on the trees at Christmas. Colonial Manhattan Islanders introduced the name Santa Claus, a corruption of the Dutch name for the 4th-century Asia-Minor St. Nicholas.

Movable Holidays, 1956 to 1965

CHRISTIAN AND SECULAR

Year	Ash Wed.	Easter	Pentecost	Labor Day	Election Day	Thanks-giving	1st Sun. Advent
1956	Feb. 15	Apr. 1	May 20	Sept. 3	Nov. 6	Nov. 22	Dec. 2
1957	Mar. 6	Apr. 21	June 9	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1958	Feb. 19	Apr. 6	May 25	Sept. 1	Nov. 4	Nov. 27	Nov. 30
1959	Feb. 11	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1960	Mar. 2	Apr. 17	June 5	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1961	Feb. 15	Apr. 2	May 21	Sept. 4	Nov. 7	Nov. 23	Dec. 3
1962	Mar. 7	Apr. 22	June 10	Sept. 3	Nov. 6	Nov. 22	Dec. 2
1963	Feb. 27	Apr. 14	June 2	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1964	Feb. 12	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1965	Mar. 3	Apr. 18	June 6	Sept. 6	Nov. 2	Nov. 25	Nov. 28

Shrove Tuesday: 1 day before Ash Wednesday.
Palm Sunday: 7 days before Easter.
Maundy Thursday: 3 days before Easter.
Good Friday: 2 days before Easter.
Holy Saturday: 1 day before Easter.
Ascension Day: 10 days before Pentecost.
Trinity Sunday: 7 days after Pentecost.
Corpus Christi: 11 days after Pentecost.

JEWISH

Year	Purim	1st day Passover	1st day Shabuoth	1st day Rosh Hashana	Yom Kippur	1st Day Sukkoth	Simhath Torah	1st Day Hanukkah
1956	Feb. 26	Mar. 27	May 16	Sept. 6	Sept. 15	Sept. 20	Sept. 28	Nov. 29
1957	Mar. 17	Apr. 16	June 5	Sept. 26	Oct. 5	Oct. 10	Oct. 18	Dec. 18
1958	Mar. 6	Apr. 5	May 25	Sept. 15	Sept. 24	Sept. 29	Oct. 7	Dec. 7
1959	Mar. 24	Apr. 23	June 12	Oct. 3	Oct. 12	Oct. 17	Oct. 25	Dec. 26
1960	Mar. 13	Apr. 12	June 1	Sept. 22	Oct. 1	Oct. 6	Oct. 14	Dec. 14
1961	Mar. 2	Apr. 1	May 21	Sept. 11	Sept. 20	Sept. 25	Oct. 3	Dec. 3
1962	Mar. 20	Apr. 19	June 8	Sept. 29	Oct. 8	Oct. 13	Oct. 21	Dec. 22
1963	Mar. 10	Apr. 9	May 29	Sept. 19	Sept. 28	Oct. 3	Oct. 11	Dec. 11
1964	Feb. 27	Mar. 28	May 17	Sept. 7	Sept. 16	Sept. 21	Sept. 29	Nov. 30
1965	Mar. 18	Apr. 17	June 6	Sept. 27	Oct. 6	Oct. 11	Oct. 19	Dec. 19

Length of Jewish holidays (O = Orthodox, C = Conservative, R = Reform):

Passover: O & C, 8 days (holy days: first 2 and last 2); R, 7 days (holy days: first and last).
Shabuoth: O & C, 2 days; R, 1 day.
Rosh Hashana: O & C, 2 days; R, 1 day.
Yom Kippur: All groups, 1 day.
Sukkoth: All groups, 7 days (holy days: O & C, first 2; R, first only). O & C observe two additional days: Shemini Atsereth (Eighth Day of the Feast) and Simhath Torah (Rejoicing of the Law). R observes Shemini Atsereth but not Simhath Torah.
Hanukkah: All groups, 8 days.

NOTE: All holidays begin at sundown on the evening before the date given.

Legal Holidays in the United States, Alaska, Hawaii & Puerto Rico

Holidays Widely Observed

January 1, New Year's Day: All states, D. C., Alaska, Hawaii, Puerto Rico.

February 12, Lincoln's Birthday: Arizona, California, Colorado, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming, Alaska.

February 22, Washington's Birthday: All states, D. C., Alaska, Hawaii, Puerto Rico.

May 30, Memorial (or Decoration) Day: All states (except Alabama, Georgia, Mississippi, South Carolina, Texas), D. C., Alaska, Hawaii, Puerto Rico.

July 4, Independence Day: All states, D. C., Alaska, Hawaii, Puerto Rico.

September (1st Monday), Labor Day: All states, D. C., Alaska, Hawaii, Puerto Rico.

October 12, Columbus Day: All states (except Arkansas, D. C., Idaho, Iowa, Maine, Mississippi, Nevada, North Carolina, Oregon, South Carolina, South Dakota, Tennessee), Puerto Rico.

November (1st Tuesday after 1st Monday), Election Day: Arizona, Arkansas, California, Colorado, Delaware, Florida, Illinois, Indiana, Iowa, Maryland, Michigan, Missouri, Montana, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, Alaska, Hawaii, Puerto Rico.

November 11, Veterans Day (formerly Armistice Day): All states, D. C., Alaska, Hawaii, Puerto Rico.

November (4th Thursday), Thanksgiving Day: All states, D. C., Alaska, Hawaii, Puerto Rico.

December 25, Christmas: All states, D. C., Alaska, Hawaii, Puerto Rico.

Other Holidays

January 6, Three Kings' Day: Puerto Rico.

January 8, Battle of New Orleans: Louisiana.

January 11, De Hostos' Birthday: Puerto Rico.

January 19, Robert E. Lee's Birthday: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia.

January 20, Inauguration Day (every 4 yrs.): D. C., Louisiana (Baton Rouge, only).

January 30, F. D. Roosevelt's Birthday: Kentucky.

February or March (1 day before Ash Wednesday), Mardi Gras (Shrove Tuesday): Alabama, Florida (in certain counties), Louisiana (in certain parishes and municipalities).

February 14, Admission Day: Arizona.

March or April (some day between Mar. 1 to Apr. 15), Arbor Day: Utah.

March 2, Texas Independence Day.

March 15, Andrew Jackson's Birthday: Tennessee.

March or April (2 days before Easter), Good Friday: California, Connecticut, Delaware, Florida, Illinois, Indiana, Louisiana, Maryland, Minnesota, New Jersey, North Dakota, Pennsylvania, Tennessee, Wisconsin, Hawaii, Puerto Rico.

March or April (1 day after Easter), Easter Monday: North Carolina.

March 22, Emancipation Day: Puerto Rico.

March 25, Maryland Day.

March 26, Kuhio Day: Hawaii.

March 30, Seward's Day: Alaska.

April 12, Halifax Resolutions Anniversary: North Carolina.

April 13, Thomas Jefferson's Birthday: Alabama, Missouri, Oklahoma.

April 16, De Diego's Birthday: Puerto Rico.

April 19, Patriots' Day: Maine, Massachusetts.

April 21, San Jacinto Day: Texas.

April 22, Arbor Day: Nebraska.

April 22, Oklahoma Day.

April 26, Confederate Memorial Day: Alabama, Florida, Georgia, Mississippi.

April (4th Monday), Fast Day: New Hampshire.

May 4, Rhode Island Independence Day.

May (2nd Sunday), Mother's Day: Arizona, Oklahoma.

May 10, Confederate Memorial Day: North Carolina, South Carolina.

May 20, Mecklenburg Independence Day: North Carolina.

June 3, Jefferson Davis' Birthday: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, Texas.

June 9, Senior Citizens Day: Oklahoma.

June 11, Kamehameha Day: Hawaii.

June 14, Flag Day: Pennsylvania.

June 20, West Virginia Day.

June (3rd Sunday), Father's Day: Arizona.

July 13, Nathan Bedford Forrest's Birthday: Tennessee.

July 17, Muñoz Rivera's Birthday: Puerto Rico.

July 24, Pioneer Day: Utah.

July 25, Constitution Day: Puerto Rico.

July 27, Barbosa's Birthday: Puerto Rico.

August 1, Colorado Day.

August 14, V-J Day: Arkansas (called World War II Memorial), Rhode Island.

August 16, Bennington Battle Day: Vermont.

August 30, Huey P. Long Day: Louisiana.

September (1st Saturday after full moon), Indian Day: Oklahoma.

September 9, Admission Day: California.

September 12, Defenders' Day: Maryland.

September 16, Cherokee Strip Day: Oklahoma.

October (Thursday of State Fair Week): South Carolina (in counties where Fair is held).

October 10, Oklahoma Historical Day.

October 18, Alaska Day.

October 31, Admission Day: Nevada.

November 1, All Saints' Day: Louisiana.

November 4, Will Rogers Day: Oklahoma.

November 19, Discovery Day: Puerto Rico.

December 10, Wyoming Day.

December 26, Day after Christmas: South Carolina.

AWARDS

★

NOBEL PRIZES

The Nobel prizes are awarded under the will of Alfred Bernhard Nobel, Swedish chemist and engineer, who died in 1896. The interest of the fund is divided annually among the persons who have made the most outstanding contributions in the field of physics, chemistry, and physiology or medicine, who have produced the most distinguished literary work of an idealist tendency, and who have contributed most toward world peace.

The prizes for physics and chemistry are awarded by the Swedish Academy of Science in Stockholm, the one for physiology or medicine by the Caroline Medical Institute in Stockholm, that for literature by the academy in Stockholm, and that for peace by a committee of five elected by the Norwegian Storting. The distribution of prizes was begun on December 10, 1901, the anniversary of Nobel's death. The amount of each prize varies with the income from the fund and since 1936 has stood at approximately $8,000.

No Nobel prizes were awarded for 1940, 1941 and 1942; prizes for Literature and Peace were not awarded for 1943.

Year	Literature	Peace
1901	René F. A. Sully Prudhomme (France)	Henri Dunant (Switzerland) and Frederick Passy (France)
1902	Theodor Mommsen (Germany)	Elie Ducommun and Albert Gobat (Switzerland)
1903	Björnstjerne Björnson (Norway)	Sir William R. Cremer (England)
1904	Frédéric Mistral (France) and José Echegaray (Spain)	Institut de Droit International (Belgium)
1905	Henryk Sienkiewicz (Poland)	Bertha von Suttner (Austria)
1906	Giosuè Carducci (Italy)	Theodore Roosevelt (U. S.)
1907	Rudyard Kipling (England)	Ernesto T. Moneta (Italy) and Louis Renault (France)
1908	Rudolf Eucken (Germany)	Klas P. Arnoldson (Sweden) and Frederik Bajer (Denmark)
1909	Selma Lagerlöf (Sweden)	Auguste M. F. Beernaert (Belgium) and Baron Paul H. B. B. d'Estournelles de Constant de Rebecque (France)
1910	Paul von Heyse (Germany)	The Bureau International Permanent de la Paix (Switzerland)
1911	Maurice Maeterlinck (Belgium)	Tobias M. C. Asser (Holland) and Alfred H. Fried (Austria)
1912	Gerhart Hauptmann (Germany)	Elihu Root (U. S.)
1913	Rabindranath Tagore (India)	Henri La Fontaine (Belgium)
1915	Romain Rolland (France)	No award
1916	Verner von Heidenstam (Sweden)	No award
1917	Karl Gjellerup (Denmark) and Henrik Pontoppidan (Denmark)	International Red Cross
1919	Carl Spitteler (Switzerland)	Woodrow Wilson (U. S.)
1920	Knut Hamsun (Norway)	Léon Bourgeois (France)
1921	Anatole France (France)	Karl H. Branting (Sweden) and Christian L. Lange (Norway)
1922	Jacinto Benavente (Spain)	Fridtjof Nansen (Norway)
1923	William B. Yeats (Ireland)	No award
1924	Wladyslaw Reymont (Poland)	No award
1925	George Bernard Shaw (England)	Sir Austen Chamberlain (England) and Charles G. Dawes (U. S.)
1926	Grazia Deledda (Italy)	Aristide Briand (France) and Gustav Stresemann (Germany)
1927	Henri Bergson (France)	Ferdinand Buisson (France) and Ludwig Quidde (Germany)
1928	Sigrid Undset (Norway)	No award
1929	Thomas Mann (Germany)	Frank B. Kellogg (U. S.)
1930	Sinclair Lewis (U. S.)	Lars O. J. Söderblom (Sweden)
1931	Erik A. Karlfeldt (Sweden)	Jane Addams (U. S.) and Nicholas M. Butler (U. S.)
1932	John Galsworthy (England)	No award
1933	Ivan G. Bunin (Russia)	Sir Norman Angell (England)
1934	Luigi Pirandello (Italy)	Arthur Henderson (England)
1935	No award	Carl von Ossietsky (Germany)
1936	Eugene O'Neill (U. S.)	Carlos de S. Lamas (Argentina)
1937	Roger Martin du Gard (France)	Lord Cecil of Chelwood (England)
1938	Pearl S. Buck (U. S.)	Office International Nansen pour les Réfugiés (Switzerland)
1939	Frans Eemil Sillanpää (Finland)	No award
1944	Johannes V. Jensen (Denmark)	International Red Cross
1945	Gabriela Mistral (Chile)	Cordell Hull (U. S.)

Year	Literature	Peace
1946	Hermann Hesse (Switzerland)	Emily G. Balch and John R. Mott (U. S.)
1947	André Gide (France)	American Friends Service Committee (U. S.) and British Society of Friends' Service Council (England)
1948	Thomas Stearns Eliot (England)	No award
1949	William Faulkner (U. S.)	Lord John Boyd Orr (Scotland)
1950	Bertrand Russell (England)	Ralph J. Bunche (U. S.)
1951	Pär Lagerkvist (Sweden)	Léon Jouhaux (France)
1952	François Mauriac (France)	Albert Schweitzer (Fr. Eq. Af.)
1953	Sir Winston Churchill (England)	George C. Marshall (U. S.)
1954	Ernest Hemingway (U. S.)	No award

Year	Physics	Chemistry	Medicine
1901	Wilhelm K. Roentgen, for discovery of Roentgen rays.	Jacobus H. van 't Hoff; laws of chemical dynamics and osmotic pressure in solutions.	Emil A. von Behring, for work on serum therapy against diphtheria.
1902	Hendrik A. Lorentz and Pieter Zeeman, for work on influence of magnetism upon radiation.	Emil Fischer, for experiments in sugar and purin groups of substances.	Sir Ronald Ross, for work on malaria.
1903	A. Henri Becquerel, work on discovery of spontaneous radioactivity. Pierre and Marie Curie; study of radiation.	Svante A. Arrhenius, for his electrolytic theory of dissociation.	Niels R. Finsen, for his treatment of lupus vulgaris, with concentrated light rays.
1904	John Strutt (Lord Rayleigh) for discovery of argon in investigating gas density.	Sir William Ramsay; discovery and determination of place of inert gaseous elements in air.	Ivan P. Pavlov, for work on the physiology of digestion.
1905	Philipp Lenard, for work with cathode rays.	Adolf von Baeyer, for work on organic dyes and hydroaromatic combinations.	Robert Koch, for work on tuberculosis.
1906	Joseph J. Thomson, for investigations on passage of electricity through gases.	Henri Moissan, for isolation of fluorine, and introduction of electric furnace.	Camillo Golgi and Santiago Ramón y Cajal, for work on structure of the nervous system.
1907	Albert A. Michelson, for spectroscopic and metrologic investigations.	Eduard Buchner; discovery of cell-less fermentation and investigations in biological chemistry.	Charles L. A. Laveran, for work with protozoa in the generation of disease.
1908	Gabriel Lippmann, for method of reproducing colors by photography.	Ernest Rutherford, for investigations into disintegration of elements and chemistry of radioactive substances.	Paul Ehrlich and Élie Metchnikoff, for work on immunity.
1909	Guglielmo Marconi and Ferdinand Braun, for development of wireless.	Wilhelm Ostwald, for work on catalysis and investigations into chemical equilibrium and reaction rates.	Theodor Kocher, for work on the thyroid gland.
1910	Johannes D. van der Waals, for work with the equation of state for gases and liquids.	Otto Wallach, for work in the field of alicyclic compounds.	Albrecht Kossel, for achievements in the chemistry of the cell.
1911	Wilhelm Wien, for his laws governing the radiation of heat.	Marie Curie, for discovery of elements radium and polonium.	Allvar Gullstrand, for work on the dioptrics of the eye.
1912	Gustaf Dalén, for discovery of automatic regulators used in lighting lighthouses and light buoys.	Victor Grignard, for reagent discovered by and named after him. Paul Sabatier, for the methods of hydrogenating organic compounds.	Alexis Carrel, for work on vascular ligature and grafting of blood vessels and organs.

ar	Physics	Chemistry	Medicine
13	H. Kamerlingh Onnes, for work leading to production of liquid helium.	Alfred Werner, for linking up atoms within the molecule.	Charles Richet, for work on anaphylaxy.
14	Max von Laue, for discovery of diffraction of Roentgen rays passing through crystals.	Theodore W. Richards, for determining atomic weight of many chemical elements.	Robert Bárány, for work on physiology and pathology of the vestibular system.
15	W. H. Bragg and W. L. Bragg, for analysis of crystal structure by means of X rays.	Richard Willstätter, for research into coloring matter of plants, especially chlorophyll.	No award.
17	Charles G. Barkla, discovery of Roentgen radiation of the elements.	No award.	No award.
18	Max Planck, for discoveries in connection with quantum theory.	Fritz Haber, for synthetic production of ammonia.	No award.
19	Johannes Stark, discovery of Doppler effect in Canal rays and decomposition of spectrum lines by electric fields.	No award.	Jules Bordet, for discoveries in connection with immunity.
20	Charles E. Guillaume, for discoveries of anomalies in nickel steel alloys.	Walther Nernst, for work in thermochemistry.	August Krogh, discovery of regulation of capillaries' motor mechanism.
21	Albert Einstein, for discovery of the law of the photoelectric effect.	Frederick Soddy, for investigations into origin and nature of isotopes.	No award.
22	Niels Bohr, for investigations of structure of atoms and radiations emanating from them.	Francis W. Aston, for discovery of isotopes in nonradioactive elements and for discovery of the whole number rule.	In 1923 the 1922 prize was divided between Archibald V. Hill for discovery relating to heat-production in muscles; and Otto Meyerhof, for correlation between consumption of oxygen and production of lactic acid in muscles.
23	Robert A. Millikan, work on elementary charge of electricity and photoelectric phenomena.	Fritz Pregl, for method of microanalysis of organic substances discovered by him.	Frederick G. Banting and John J. R. Macleod, for discovery of insulin.
24	Karl M. G. Siegbahn, for investigations in X-ray spectroscopy.	No award.	Willem Einthoven, for discovering the mechanism of the electrocardiogram.
25	James Franck and Gustav Hertz, for discovery of laws governing impact of electrons upon atoms.	In 1926 the 1925 prize was awarded to Richard Zsigmondy, for work on the heterogeneous nature of colloid solutions.	No award.
26	Jean Perrin, for works on discontinuous structure of matter and discovery of the equilibrium of sedimentation.	The Svedberg, for work on disperse systems.	Johannes Fibiger, for discovery of the Spiroptera carcinoma.
27	Arthur H. Compton, discovery of Compton phenomenon; and Charles T. R. Wilson, for method of perceiving paths taken by electrically charged particles.	In 1928 the 1927 prize was awarded to Heinrich Wieland, for investigations of bile acids and kindred substances.	Julius Wagner-Jauregg, for use of malaria inoculation in treatment of dementia paralytica.

Year	Physics	Chemistry	Medicine
1928	In 1929 the 1928 prize was awarded to Owen W. Richardson, for work on the phenomenon of thermionics and discovery of the Richardson Law.	Adolf Windaus, for investigations on constitution of the sterols and their connection with vitamins.	Charles Nicolle, for work on typhus exanthematicus.
1929	Prince Louis Victor de Broglie, for discovery of the wave character of electrons.	Arthur Harden and Hans K. A. S. von Euler-Chelpin, for research of fermentation of sugars.	Christiaan Eijkman, for discovery of the antineuritic vitamins; and Sir Frederick G. Hopkins, for discovery of growth-promoting vitamins.
1930	Sir Chandrasekhara V. Raman, for work on diffusion of light and discovery of the Raman effect.	Hans Fischer, for work on coloring matter of blood and leaves and for his synthesis of hemin.	Karl Landsteiner, for discovery of human blood groups.
1931	No award.	Karl Bosch and Friedrich Bergius, for invention and development of chemical high-pressure methods.	Otto H. Warburg, for discovery of the character and mode of action of the respiratory ferment.
1932	In 1933 the prize for 1932 was awarded to Werner Heisenberg, for creation of the quantum mechanics.	Irving Langmuir, for work in realm of surface chemistry.	Sir Charles S. Sherrington and Edgar D. Adrian, for discoveries of the function of the neuron.
1933	Erwin Schrödinger and Paul A. M. Dirac, for discovery of new fertile forms of the atomic theory.	No award.	Thomas H. Morgan, for discoveries on hereditary function of the chromosomes.
1934	No award.	Harold C. Urey, for discovery of heavy hydrogen.	George H. Whipple, George R. Minot, and William P. Murphy, for discovery of liver therapy against anemias.
1935	James Chadwick, for discovery of the neutron.	Frédéric and Irène Joliot-Curie, for synthesis of new radioactive elements.	Hans Spemann, for discovery of the organizer-effect in embryonic development.
1936	Victor F. Hess, for discovery of cosmic radiation; and Carl D. Anderson, for discovery of the positron.	Peter J. W. Debye, for investigations on dipole moments and diffraction of X rays and electrons in gases.	Sir Henry H. Dale and Otto Loewi, for discoveries on chemical transmission of nerve impulses.
1937	Clinton J. Davisson and George P. Thomson, for discovery of diffraction of electrons by crystals.	Walter N. Haworth, for research on carbohydrates and vitamin C; and Paul Karrer, for work on carotenoids, flavins and vitamins A and B.	Albert Szent-Györgyi von Nagyrapolt, for discoveries on biological combustion.
1938	Enrico Fermi, for identification of new radioactivity elements and discovery of nuclear reactions effected by slow neutrons.	Richard Kuhn, for carotinoid study and vitamin research (declined the prize).	Corneille Heymans, for importance of sinus and aorta mechanisms in the regulation of respiration.
1939	Ernest Orlando Lawrence, for the development of the cyclotron.	Adolf Friedrich Johann Butenandt, for work on sexual hormones (declined the prize); and Leopold Ružička, work with polymethylenes.	Gerhard Domagk, antibacterial effect of prontosil.

Year	Physics	Chemistry	Medicine
1943	Otto Stern, for detection of magnetic momentum of protons.	George Hevesy De Heves, for work on use of isotopes as chemical indicators.	Henrik Dam, Edward A. Doisy for the discovery of the chemical nature of Vitamin K.
1944	Isidor Isaac Rabi, for work on magnetic movements of atomic particles.	Otto Hahn, for work on atomic fission.	Joseph Erlanger and Herbert Spencer Gasser, for work on functions of the nerve threads.
1945	Wolfgang Pauli, for work on atomic fissions.	Artturi Ilmari Virtanen, for research in the field of conservation of fodder.	Sir Alexander Fleming, Ernst Boris Chain, and Sir Howard Florey, for discovery of penicillin.
1946	Percy Williams Bridgman, studies and inventions in high-pressure physics.	James B. Sumner, crystallizing of enzymes. John H. Northrop and Wendell M. Stanley, preparing enzymes and virus proteins in pure form.	Herman J. Muller, hereditary effects of X ray on genes.
1947	Sir Edward Appleton, for discovery of layer which reflects radio short waves in the ionosphere.	Sir Robert Robinson, for research in plant substances.	Carl F. and Gerty T. Cori, for work on animal starch metabolism; Bernardo A. Houssay, for hormone study of pituitary gland.
1948	Patrick M. S. Blackett, for improvement on Wilson chamber, discoveries in cosmic radiation.	Arne Tiselius, for biochemical discoveries and isolation of mouse paralysis virus.	Paul Mueller, for discovery of insect-killing properties of DDT.
1949	Hideki Yukawa, for mathematical prediction, 14 years ago, of the meson.	William Francis Giauque, for research in thermodynamics, especially effects of low temperature.	Walter Rudolf Hess, for research on brain control of body; and Antonio Caetano de Abreu Freire Egas Moniz, for development of brain operation to treat mental disease.
1950	Cecil Frank Powell, for method of photographic study of atom nucleus, and for discoveries about mesons.	Otto Diels and Kurt Adler, for dien synthesis for artificial manufacture of odors and complicated compounds.	Philip S. Hench, Edward C. Kendall, and Tadeus Reichstein, for discoveries about hormones of adrenal cortex.
1951	Sir John Douglas Cockcroft and Ernest T. S. Walton, for work in 1932 on transmutation of atomic nuclei.	Glenn T. Seaborg and Edwin M. McMillan, for discovery of plutonium.	Max Theiler, for development of anti-yellow-fever vaccine.
1952	Edward Mills Purcell and Felix Bloch, for work in measurement of magnetic fields in atomic nuclei.	Archer John Porter Martin and Richard Laurence Millington Synge, for development of the partition chromatography process (coloring, identifying, separating compounds).	Selman A. Waksman, for co-discovery of streptomycin.
1953	Fritz Zernike, for development of "phase contrast" microscope.	Hermann Staudinger, for research in giant molecules.	Fritz A. Lipmann and Hans Adolph Krebs, for studies of living cells.
1954	Max Born, for work in quantum mechanics; and Walther Bothe, for work in cosmic radiation.	Linus Pauling, for study of forces holding together protein and other molecules.	John F. Enders, Thomas H. Weller and Frederick C. Robbins, for work with cultivation of polio virus.

(For 1955 Nobel Prize winners, *see* Nobel Prizes in index.)

Pulitzer Prize Awards

Source: Columbia University, New York. (For years not listed, no award was made.)

Pulitzer Prizes in Journalism

Meritorious Public Service

1918 *New York Times*
1919 *Milwaukee Journal*
1921 *Boston Post*
1922 *New York World*
1923 *Memphis Commercial Appeal*
1924 *New York World*
1926 *Columbus* (Ga.) *Enquirer Sun*
1927 *Canton* (Ohio) *Daily News*
1928 *Indianapolis Times*
1929 *New York Evening World*
1931 *Atlanta Constitution*
1932 *Indianapolis News*
1933 *New York World-Telegram*
1934 *Medford* (Oreg.) *Mail Tribune*
1935 *Sacramento Bee*
1936 *Cedar Rapids* (Iowa) *Gazette*
1937 *St. Louis Post-Dispatch*
1938 *Bismarck* (N. Dak.) *Tribune;* Special Bronze Plaque: *Edmonton* (Alberta) *Journal*
1939 *Miami Daily News*
1940 *Waterbury* (Conn.) *Republican & American*
1941 *St. Louis Post-Dispatch*
1942 *Los Angeles Times*
1943 *Omaha World-Herald*
1944 *New York Times*
1945 *Detroit Free Press*
1946 *Scranton* (Pa.) *Times*
1947 *Baltimore Sun*
1948 *St. Louis Post-Dispatch*
1949 (Lincoln) *Nebraska State Journal*
1950 *Chicago Daily News; St. Louis Post-Dispatch*
1951 *Miami Herald; Brooklyn Eagle*
1952 *St. Louis Post-Dispatch*
1953 *Whiteville* (N. C.) *News Reporter; Tabor City* (N. C.) *Tribune*
1954 (Garden City, L. I.) *Newsday*
1955 *Columbus* (Ga.) *Ledger & Sunday Ledger-Enquirer*

Editorial

1917 *New York Tribune*
1918 *Louisville Courier-Journal*
1920 Harvey E. Newbranch (*Omaha Evening World-Herald*)
1922 Frank M. O'Brien (*New York Herald*)
1923 William Allen White (*Emporia* [Kans.] *Gazette*)
1924 *Boston Herald;* Special prize: Frank I. Cobb (*New York World*)
1925 *Charleston* (S. C.) *News and Courier*
1926 *New York Times* (Edward M. Kingsbury)
1927 *Boston Herald* (F. Lauriston Bullard)
1928 Grover Cleveland Hall (*Montgomery* [Ala.] *Advertiser*)
1929 Louis Isaac Jaffe (*Norfolk Virginian-Pilot*)
1931 Charles S. Ryckman (*Fremont* [Nebr.] *Tribune*)
1933 *Kansas City* (Mo.) *Star*
1934 E. P. Chase (*Atlantic* [Iowa] *News Telegraph*)
1936 Felix Morley (*Washington* [*D.C.*] *Post*); George B. Parker (Scripps-Howard Newspapers)
1937 John W. Owens (*Baltimore Sun*)
1938 W. W. Waymack (*Des Moines Register & Tribune*)
1939 Ronald G. Callvert (*Portland Oregonian*)
1940 Bart Howard (*St. Louis Post-Dispatch*)
1941 Reuben Maury (*New York Daily News*)
1942 Geoffrey Parsons (*New York Herald Tribune*)
1943 Forrest W. Seymour (*Des Moines Register & Tribune*)
1944 *Kansas City* (Mo.) *Star* (Henry J. Haskell)
1945 George W. Potter (*Providence* [R. I.] *Journal-Bulletin*)
1946 Hodding Carter ([Greenville, Miss.] *Delta Democrat-Times*)
1947 William H. Grimes (*Wall Street Journal*)
1948 Virginius Dabney (*Richmond Times-Dispatch*)
1949 John H. Crider (*Boston Herald*) Herbert Elliston (*Washington Post*)
1950 Carl M. Saunders (*Jackson* [Mich.] *Citizen Patriot*)
1951 William H. Fitzpatrick (*New Orleans States*)
1952 Louis LaCoss (*St. Louis Globe-Democrat*)
1953 Vermont C. Royster (*Wall Street Journal*)
1954 Donald M. Murry (*Boston Herald*)
1955 Royce Howes (*Detroit Press*)

Correspondence

1929 Paul Scott Mowrer (*Chicago Daily News*)
1930 Leland Stowe (*New York Herald Tribune*)
1931 H. R. Knickerbocker (*Philadelphia Public Ledger* and *New York Evening Post*)
1932 Walter Duranty (*New York Times*); Charles G. Ross (*St. Louis Post-Dispatch*)
1933 Edgar Ansel Mowrer (*Chicago Daily News*)
1934 Frederick T. Birchall (*New York Times*)
1935 Arthur Krock (*New York Times*)
1936 Wilfred C. Barber (*Chicago Tribune*)
1937 Anne O'Hare McCormick (*New York Times*)
1938 Arthur Krock (*New York Times*)
1939 Louis P. Lochner (Associated Press)
1940 Otto D. Tolischus (*New York Times*)
1941 Group award*
1942 Carlos P. Romulo (*Philippines Herald*)
1943 Hanson W. Baldwin (*New York Times*)
1944 Ernie Pyle (Scripps-Howard Newspaper Alliance)
1945 Harold V. (Hal) Boyle (Associated Press)
1946 Arnaldo Cortesi (*New York Times*)
1947 Brooks Atkinson (*New York Times*)
1948 Discontinued

*For the public services and the individual achievements of American news reporters in the war zones.

Cartoon

1922 Rollin Kirby (*New York World*)
1924 Jay Norwood Darling (*New York Tribune*)
1925 Rollin Kirby (*New York World*)
1926 D. R. Fitzpatrick (*St. Louis Post-Dispatch*)
1927 Nelson Harding (*Brooklyn Eagle*)
1928 Nelson Harding (*Brooklyn Eagle*)

929 ROLLIN KIRBY (*New York World*)
930 CHARLES R. MACAULEY (*Brooklyn Eagle*)
931 EDMUND DUFFY (*Baltimore Sun*)
932 JOHN T. MCCUTCHEON (*Chicago Tribune*)
933 HAROLD MORTON TALBURT (*Washington Daily News*)
934 EDMUND DUFFY (*Baltimore Sun*)
935 ROSS A. LEWIS (*Milwaukee Journal*)
937 CLARENCE DANIEL BATCHELOR (*New York Daily News*)
938 VAUGHN SHOEMAKER (*Chicago Daily News*)
939 CHARLES G. WERNER (*Daily Oklahoman* [Oklahoma City])
940 EDMUND DUFFY (*Baltimore Sun*)
941 JACOB BURCK (*Chicago Times*)
942 HERBERT L. BLOCK (NEA Service)
943 JAY NORWOOD DARLING (*New York Herald Tribune*)
944 CLIFFORD K. BERRYMAN (*Washington* [D. C.] *Evening Star*)
945 BILL MAULDIN (United Features Syndicate, Inc.)
946 BRUCE ALEXANDER RUSSELL (*Los Angeles Times*)
947 VAUGHN SHOEMAKER (*Chicago Daily News*)
948 RUBE GOLDBERG (*New York Sun*)
949 LUTE PEASE (*Newark Evening News*)
950 JAMES T. BERRYMAN (*Washington* [D. C.] *Evening Star*)
951 REG (REGINALD W.) MANNING (*Arizona Republic* [Phoenix])
952 FRED L. PACKER (*New York Mirror*)
953 EDWARD D. KUEKES (*Cleveland Plain Dealer*)
954 HERBERT L. BLOCK (*Washington* [D. C.] *Post*)
955 DANIEL R. FITZPATRICK (*St. Louis Post-Dispatch*)

News Photography

942 MILTON BROOKS (*Detroit News*)
943 FRANK NOEL (Associated Press)
944 FRANK FILAN (Associated Press) EARLE L. BUNKER (*Omaha World-Herald*)
945 JOE ROSENTHAL (Associated Press)
947 ARNOLD HARDY
948 FRANK CUSHING (*Boston Traveler*)
949 NAT FEIN (*New York Herald Tribune*)
950 BILL CROUCH (*Oakland Tribune*)
951 MAX DESFOR (Associated Press)
952 JOHN ROBINSON & DON ULTANG (*Des Moines Register & Tribune*)
953 WILLIAM M. GALLAGHER (*Flint* [Mich.] *Journal*)
954 MRS. WALTER M. SCHAU
955 JOHN L. GAUNT, JR. (*Los Angeles Times*)

National Telegraphic Reporting

942 LOUIS STARK (*New York Times*)
944 DEWEY L. FLEMING (*Baltimore Sun*)
945 JAMES B. RESTON (*New York Times*)
946 EDWARD A. HARRIS (*St. Louis Post-Dispatch*)
947 EDWARD T. FOLLIARD (*Washington* [D. C.] *Post*)

National Reporting

948 BERT ANDREWS (*New York Herald Tribune*); NAT S. FINNY (*Minneapolis Tribune*)
949 C. P. TRUSSELL (*New York Times*)
950 EDWIN O. GUTHMAN (*Seattle Times*)
952 ANTHONY LEVIERO (*New York Times*)
953 DON WHITEHEAD (Associated Press)
954 RICHARD L. WILSON (Cowles Newspapers)
955 ANTHONY LEWIS (*Washington Daily News*)

International Telegraphic Reporting

942 LAURENCE EDMUND ALLEN (Associated Press)
943 IRA WOLFERT (North American Newspaper Alliance, Inc.)
944 DANIEL DE LUCE (Associated Press)
945 MARK S. WATSON (*Baltimore Sun*)
946 HOMER W. BIGART (*New York Herald Tribune*)
947 EDDY GILMORE (Associated Press)

International Reporting

948 PAUL W. WARD (*Baltimore Sun*)
949 PRICE DAY (*Baltimore Sun*)
950 EDMUND STEVENS (*Christian Science Monitor*)
951 KEYES BEECH & FRED SPARKS (*Chicago Daily News*); HOMER BIGART & MARGUERITE HIGGINS (*New York Herald Tribune*); RELMAN MORIN & DON WHITEHEAD (Associated Press)
952 JOHN M. HIGHTOWER (Associated Press)
953 AUSTIN C. WEHRWEIN (*Milwaukee Journal*)
954 JIM G. LUCAS (Scripps-Howard Newspapers)
955 HARRISON E. SALISBURY (*New York Times*)

Reporting

917 HERBERT B. SWOPE (*New York World*)
918 HAROLD A. LITTLEDALE (*New York Evening Post*)
920 JOHN J. LEARY, JR. (*New York World*)
921 LOUIS SEIBOLD (*New York World*)
922 KIRKE L. SIMPSON (Associated Press)
923 ALVA JOHNSTON (*New York Times*)
924 MAGNER WHITE (*San Diego Sun*)
925 JAMES W. MULROY & ALVIN H. GOLDSTEIN (*Chicago Daily News*)
926 WILLIAM BURKE MILLER (*Louisville Courier-Journal*)
927 JOHN T. ROGERS (*St. Louis Post-Dispatch*)
929 PAUL Y. ANDERSON (*St. Louis Post-Dispatch*)
930 RUSSELL D. OWEN (*New York Times*); Special award: W. O. DAPPING (*Auburn* [N. Y.] *Citizen*)
931 A. B. MACDONALD (*Kansas City* [Mo.] *Star*)
932 W. C. RICHARDS, D. D. MARTIN, J. S. POOLER, F. D. WEBB, J. N. W. SLOAN (all of *Detroit Free Press*)
933 FRANCIS A. JAMIESON (Associated Press)
934 ROYCE BRIER (*San Francisco Chronicle*)
935 WILLIAM H. TAYLOR (*New York Herald Tribune*)
936 LAUREN D. LYMAN (*New York Times*)
937 JOHN J. O'NEILL (*New York Herald Tribune*), WILLIAM LEONARD LAURENCE (*New York Times*), HOWARD W. BLAKESLEE (Associated Press), GOBIND BEHARI

LAL (Universal Service), DAVID DIETZ (Scripps-Howard Newspapers)

1938 RAYMOND SPRIGLE (*Pittsburgh Post-Gazette*)

1939 THOMAS L. STOKES (*New York World-Telegram*)

1940 S. BURTON HEATH (*New York World-Telegram*)

1941 WESTBROOK PEGLER (*New York World-Telegram*)

1942 STANTON DELAPLANE (*San Francisco Chronicle*)

1943 GEORGE WELLER (*Chicago Daily News*)

1944 PAUL SCHOENSTEIN & associates (*New York Journal-American*)

1945 JACK S. McDOWELL (*San Francisco Call-Bulletin*)

1946 WILLIAM LEONARD LAURENCE (*New York Times*)

1947 FREDERICK WOLTMAN (*New York World-Telegram*)

Local Reporting

1948 GEORGE E. GOODWIN (*Atlanta Journal*)

1949 MALCOLM JOHNSON (*New York Sun*)

1950 MEYER BERGER (*New York Times*)

1951 EDWARD S. MONTGOMERY (*San Francisco Examiner*)

1952 GEORGE DE CARVALHO (*San Francisco Chronicle*)

1953 Reporting and photographic staffs (*Providence Journal & Evening Bulletin*); EDWARD J. MOWERY (*New York World-Telegram & Sun*)

1954 *Vicksburg* (Miss.) *Sunday Post-Herald*; ALVIN SCOTT McCOY (*Kansas City* [Mo.] *Star*)

1955 MRS. CARO BROWN (*Alice* [Tex.] *Daily Echo*); ROLAND KENNETH TOWERY (*Cuero* [Tex.] *Record*)

Special Citation

1941 *New York Times* for the public educational value of its foreign news report.

1944 BYRON PRICE, Director of the Office of Censorship, for the creation and administration of the newspaper and radio codes.

1945 MRS. WILLIAM ALLEN WHITE, for her husband's interest and services during the past seven years as a member of the Advisory Board of the Graduate School of Journalism, Columbia University. The cartographers of the American press for their war maps.

1947 (Pulitzer centennial year.) Columbia University and the Graduate School of Journalism, for their efforts to maintain and advance the high standards governing the Pulitzer Prize awards. The *St. Louis Post-Dispatch*, for its unswerving adherence to the public and professional ideals of its founder and its leadership in the field of American journalism.

1948 DR. FRANK D. FACKENTHAL, for his interest and service.

1951 CYRUS L. SULZBERGER (*New York Times*) for his exclusive interview with Archbishop Stepinac in a Yugoslav prison.

1952 *Kansas City Star* for coverage of 1951 floods; MAX KASE (*New York Journal-American*) for exposures of bribery in college basketball.

1953 *New York Times* for its 17-year publication of "News of the Week in Review."

History of Services Rendered Public by American Press in Preceding Year

1918 MINNA LEWISON, HENRY B. HOUGH

Pulitzer Prizes in Letters

Novel

1918 *His Family*. By ERNEST POOLE

1919 *The Magnificent Ambersons*. By BOOTH TARKINGTON

1921 *The Age of Innocence*. By EDITH WHARTON

1922 *Alice Adams*. By BOOTH TARKINGTON

1923 *One of Ours*. By WILLA CATHER

1924 *The Able McLaughlins*. By MARGARET WILSON

1925 *So Big*. By EDNA FERBER

1926 *Arrowsmith*. By SINCLAIR LEWIS

1927 *Early Autumn*. By LOUIS BROMFIELD

1928 *The Bridge of San Luis Rey*. By THORNTON WILDER

1929 *Scarlet Sister Mary*. By JULIA PETERKIN

1930 *Laughing Boy*. By OLIVER LA FARGE

1931 *Years of Grace*. By MARGARET AYER BARNES

1932 *The Good Earth*. By PEARL S. BUCK

1933 *The Store*. By T. S. STRIBLING

1934 *Lamb in His Bosom*. By CAROLINE MILLER

1935 *Now in November*. By JOSEPHINE WINSLOW JOHNSON

1936 *Honey in the Horn*. By HAROLD L. DAVIS

1937 *Gone With the Wind*. By MARGARET MITCHELL

1938 *The Late George Apley*. By JOHN PHILLIPS MARQUAND

1939 *The Yearling*. By MARJORIE KINNAN RAWLINGS

1940 *The Grapes of Wrath*. By JOHN STEINBECK

1942 *In This Our Life*. By ELLEN GLASGOW

1943 *Dragon's Teeth*. By UPTON SINCLAIR

1944 *Journey in the Dark*. By MARTIN FLAVIN

1945 *A Bell for Adano*. By JOHN HERSEY

1947 *All the King's Men*. By ROBERT PENN WARREN

1948 *Tales of the South Pacific*. By JAMES A. MICHENER

1949 *Guard of Honor*. By JAMES GOULD COZZENS

1950 *The Way West*. By A. B. GUTHRIE, JR.

1951 *The Town*. By CONRAD RICHTER

1952 *The Caine Mutiny*. By HERMAN WOUK

1953 *The Old Man and the Sea*. By ERNEST HEMINGWAY

1955 *A Fable*. By WILLIAM FAULKNER

Drama

1918 *Why Marry?* By JESSE LYNCH WILLIAMS

20 *Beyond the Horizon.* By Eugene O'Neill
21 *Miss Lulu Bett.* By Zona Gale
22 *Anna Christie.* By Eugene O'Neill
23 *Icebound.* By Owen Davis
24 *Hell-Bent Fer Heaven.* By Hatcher Hughes
25 *They Knew What They Wanted.* By Sidney Howard
26 *Craig's Wife.* By George Kelly
27 *In Abraham's Bosom.* By Paul Green
28 *Strange Interlude.* By Eugene O'Neill
29 *Street Scene.* By Elmer L. Rice
30 *The Green Pastures.* By Marc Connelly
31 *Alison's House.* By Susan Glaspell
32 *Of Thee I Sing.* By George S. Kaufman, Morrie Ryskind & Ira Gershwin
33 *Both Your Houses.* By Maxwell Anderson
34 *Men in White.* By Sidney Kingsley
35 *The Old Maid.* By Zoe Akins
36 *Idiot's Delight.* By Robert E. Sherwood
37 *You Can't Take It With You.* By Moss Hart and George S. Kaufman
38 *Our Town.* By Thornton Wilder
39 *Abe Lincoln in Illinois.* By Robert E. Sherwood
40 *The Time of Your Life.* By William Saroyan
41 *There Shall Be No Night.* By Robert E. Sherwood
43 *The Skin of Our Teeth.* By Thornton Wilder
45 *Harvey.* By Mary Chase
46 *State of the Union.* By Russell Crouse and Howard Lindsay
48 *A Streetcar Named Desire.* By Tennessee Williams
49 *Death of a Salesman.* By Arthur Miller
50 *South Pacific.* By Richard Rodgers, Oscar Hammerstein 2nd, and Joshua Logan
52 *The Shrike.* By Joseph Kramm
53 *Picnic.* By William Inge
54 *The Teahouse of the August Moon.* By John Patrick
55 *Cat on a Hot Tin Roof.* By Tennessee Williams

United States History

1917 *With Americans of Past and Present Days.* By J. J. Jusserand, Ambassador of France to U. S.
1918 *A History of the Civil War, 1861–1865.* By James Ford Rhodes
1920 *The War with Mexico.* By Justin H. Smith
1921 *The Victory at Sea.* By William Sowden Sims in collaboration with Burton J. Hendrick
1922 *The Founding of New England.* By James Truslow Adams
1923 *The Supreme Court in United States History.* By Charles Warren
1924 *The American Revolution—A Constitutional Interpretation.* By Charles Howard McIlwain
1925 *A History of the American Frontier.* By Frederic L. Paxson
1926 *The History of the United States.* By Edward Channing
1927 *Pinckney's Treaty.* By Samuel Flagg Bemis
1928 *Main Currents in American Thought,* 2 vols. By Vernon Louis Parrington
1929 *The Organization and Administration of the Union Army, 1861–1865.* By Fred Albert Shannon
1930 *The War of Independence.* By Claude H. Van Tyne
1931 *The Coming of the War: 1914.* By Bernadotte E. Schmitt
1932 *My Experiences in the World War.* By John J. Pershing
1933 *The Significance of Sections in American History.* By Frederick J. Turner
1934 *The People's Choice.* By Herbert Agar
1935 *The Colonial Period of American History.* By Charles McLean Andrews
1936 *The Constitutional History of the U. S.* By Andrew C. McLaughlin
1937 *The Flowering of New England.* By Van Wyck Brooks
1938 *The Road to Reunion, 1865–1900.* By Paul Herman Buck
1939 *A History of American Magazines.* By Frank Luther Mott
1940 *Abraham Lincoln: The War Years.* By Carl Sandburg
1941 *The Atlantic Migration, 1607–1860.* By Marcus Lee Hansen
1942 *Reveille in Washington.* By Margaret Leech
1943 *Paul Revere and the World He Lived In.* By Esther Forbes
1944 *The Growth of American Thought.* By Merle Curti
1945 *Unfinished Business.* By Stephen Bonsal
1946 *The Age of Jackson.* By Arthur M. Schlesinger, Jr.
1947 *Scientists Against Time.* By James Phinney Baxter, 3rd
1948 *Across the Wide Missouri.* By Bernard DeVoto
1949 *The Disruption of American Democracy.* By Roy Franklin Nichols
1950 *Art and Life in America.* By Oliver W. Larkin
1951 *The Old Northwest, Pioneer Period 1815–1840, Vols. I and II.* By R. Carlyle Buley
1952 *The Uprooted.* By Oscar Handlin
1953 *The Era of Good Feelings.* By George Dangerfield
1954 *A Stillness at Appomattox.* By Bruce Catton
1955 *Great River, the Rio Grande in North American History.* By Paul Horgan

Biography

1917 *Julia Ward Howe.* By Laura E. Richards and Maude Howe Elliott assisted by Florence Howe Hall
1918 *Benjamin Franklin, Self-Revealed.* By William Cabell Bruce
1919 *The Education of Henry Adams.* By Henry Adams
1920 *The Life of John Marshall.* By Albert J. Beveridge
1921 *The Americanization of Edward Bok.* By Edward Bok
1922 *A Daughter of the Middle Border.* By Hamlin Garland

1923 *The Life and Letters of Walter H. Page.* By Burton J. Hendrick
1924 *From Immigrant to Inventor.* By Michael Idvorsky Pupin
1925 *Barrett Wendell and His Letters.* By M. A. DeWolfe Howe
1926 *The Life of Sir Wm. Osler.* By Harvey Cushing
1927 *Whitman.* By Emory Holloway
1928 *The American Orchestra and Theodore Thomas.* By Charles Edward Russell
1929 *The Training of an American. The Earlier Life and Letters of Walter H. Page.* By Burton J. Hendrick
1930 *The Raven.* By Marquis James
1931 *Charles W. Eliot.* By Henry James
1932 *Theodore Roosevelt.* By Henry F. Pringle
1933 *Grover Cleveland.* By Allan Nevins
1934 *John Hay.* By Tyler Dennett
1935 *R. E. Lee.* By Douglas S. Freeman
1936 *The Thought and Character of William James.* By Ralph Barton Perry
1937 *Hamilton Fish.* By Allan Nevins
1938 *Pedlar's Progress.* By Odell Shepard. *Andrew Jackson.* By Marquis James
1939 *Benjamin Franklin.* By Carl Van Doren
1940 *Woodrow Wilson. Life and Letters,* Vols. VII and VIII. By Ray Stannard Baker
1941 *Jonathan Edwards.* By Ola Elizabeth Winslow
1942 *Crusader in Crinoline.* By Forrest Wilson
1943 *Admiral of the Ocean Sea.* By Samuel Eliot Morison
1944 *The American Leonardo: The Life of Samuel F. B. Morse.* By Carlton Mabee
1945 *George Bancroft: Brahmin Rebel.* By Russel Blaine Nye
1946 *Son of the Wilderness.* By Linnie Marsh Wolfe
1947 *The Autobiography of William Allen White*
1948 *Forgotten First Citizen: John Bigelow.* By Margaret Clapp
1949 *Roosevelt and Hopkins.* By Robert E. Sherwood
1950 *John Quincy Adams and the Foundations of American Foreign Policy.* By Samuel Flagg Bemis
1951 *John C. Calhoun: American Portrait.* By Margaret Louise Coit
1952 *Charles Evans Hughes.* By Merlo J. Pusey
1953 *Edmund Pendleton 1721–1803.* By David J. Mays
1954 *The Spirit of St. Louis.* By Charles A. Lindbergh
1955 *The Taft Story.* By William S. White

Poetry

1918* *Love Songs.* By Sara Teasdale
1919* *Old Road to Paradise.* By Margaret Widdemer
Corn Huskers. By Carl Sandburg
1922 *Collected Poems.* By Edwin Arlington Robinson
1923 *The Ballad of the Harp-Weaver; A Few Figs from Thistles;* eight sonnets in *American Poetry, 1922, A Miscellany.* By Edna St. Vincent Millay
1924 *New Hampshire: A Poem with Notes and Grace Notes.* By Robert Frost
1925 *The Man Who Died Twice.* By Edwin Arlington Robinson
1926 *What's O'Clock.* By Amy Lowell
1927 *Fiddler's Farewell.* By Leonora Speyer
1928 *Tristram.* By Edwin Arlington Robinson
1929 *John Brown's Body.* By Stephen Vincent Benét
1930 *Selected Poems.* By Conrad Aiken
1931 *Collected Poems.* By Robert Frost
1932 *The Flowering Stone.* By George Dillon
1933 *Conquistador.* By Archibald MacLeish
1934 *Collected Verse.* By Robert Hillyer
1935 *Bright Ambush.* By Audrey Wurdemann
1936 *Strange Holiness.* By Robert P. Tristram Coffin
1937 *A Further Range.* By Robert Frost
1938 *Cold Morning Sky.* By Marya Zaturenska
1939 *Selected Poems.* By John Gould Fletcher
1940 *Collected Poems.* By Mark Van Doren
1941 *Sunderland Capture.* By Leonard Bacon
1942 *The Dust Which Is God.* By William Rose Benét
1943 *A Witness Tree.* By Robert Frost
1944 *Western Star.* By Stephen Vincent Benét
1945 *V-Letter and Other Poems.* By Karl Shapiro
1947 *Lord Weary's Castle.* By Robert Lowell
1948 *The Age of Anxiety.* By W. H. Auden
1949 *Terror and Decorum.* By Peter Viereck
1950 *Annie Allen.* By Gwendolyn Brooks
1951 *Complete Poems.* By Carl Sandburg
1952 *Collected Poems.* By Marianne Moore
1953 *Collected Poems, 1917–52.* By Archibald MacLeish
1954 *The Waking: Poems 1933–1953.* By Theodore Roethke
1955 *Collected Poems.* By Wallace Stevens

Music

1943 *Secular Cantata No. 2, A Free Song.* By William Schuman
1944 *Symphony No. 4* (Op. 34). By Howard Hanson
1945 *Appalachian Spring.* By Aaron Copland
1946 *The Canticle of the Sun.* By Leo Sowerby
1947 *Symphony No. 3.* By Charles Ives
1948 *Symphony No. 3.* By Walter Piston
1949 *Louisiana Story* music By Virgil Thomson
1950 *The Consul.* By Gian Carlo Menotti
1951 Music for opera *Giant in the Earth.* By Douglas Stuart Moore
1952 *Symphony Concertante.* By Gail Kubick
1954 *Concerto for Two Pianos and Orchestra.* By Quincy Porter
1955 *The Saint of Bleecker Street.* By Gian-Carlo Menotti

Special Award

1944 *Oklahoma!* By Richard Rodgers and Oscar Hammerstein 2nd

* Previous to the establishment of this prize in 1922, the 1918 and 1919 awards were made from gifts provided by the Poetry Society.

List of Academy Awards for Production, Acting, and Direction

ar	PRODUCTION	DIRECTOR AND MOVIE
28	*Wings*, Paramount	Frank Borzage, *Seventh Heaven;* Lewis Milestone, *Two Arabian Nights*
29	*The Broadway Melody*, M-G-M	Frank Lloyd, *The Divine Lady*
30	*All Quiet on the Western Front*, Universal	Lewis Milestone, *All Quiet on the Western Front*
31	*Cimarron*, RKO Radio	Norman Taurog, *Skippy*
32	*Grand Hotel*, M-G-M	Frank Borzage, *Bad Girl*
33	*Cavalcade*, Fox	Frank Lloyd, *Cavalcade*
34	*It Happened One Night*, Columbia	Frank Capra, *It Happened One Night*
35	*Mutiny on the Bounty*, M-G-M	John Ford, *The Informer*
36	*The Great Ziegfeld*, M-G-M	Frank Capra, *Mr. Deeds Goes to Town*
37	*The Life of Emile Zola*, Warner	Leo McCarey, *The Awful Truth*
38	*You Can't Take It With You*, Columbia	Frank Capra, *You Can't Take It With You*
39	*Gone With the Wind*, Selznick–M-G-M	Victor Fleming, *Gone With the Wind*
40	*Rebecca*, Selznick–UA	John Ford, *The Grapes of Wrath*
41	*How Green Was My Valley*, 20th Century-Fox	John Ford, *How Green Was My Valley*
42	*Mrs. Miniver*, M-G-M	William Wyler, *Mrs. Miniver*
43	*Casablanca*, Warner Bros.	Michael Curtiz, *Casablanca*
44	*Going My Way*, Paramount	Leo McCarey, *Going My Way*
45	*The Lost Weekend*, Paramount	Billy Wilder, *The Lost Weekend*
46	*The Best Years of Our Lives*, Goldwyn–RKO Radio	William Wyler, *The Best Years of Our Lives*
47	*Gentleman's Agreement*, 20th Century-Fox	Elia Kazan, *Gentleman's Agreement*
48	*Hamlet*, Rank–Two Cities–U-I	John Huston, *Treasure of Sierra Madre*
49	*All the King's Men*, Rossen–Columbia	Joseph L. Mankiewicz, *A Letter to Three Wives*
50	*All About Eve*, 20th Century-Fox	Joseph L. Mankiewicz, *All About Eve*
51	*An American in Paris*, M-G-M	George Stevens, *A Place in the Sun*
52	*The Greatest Show on Earth*, Paramount	John Ford, *The Quiet Man*
53	*From Here to Eternity*, Columbia	Fred Zinnemann, *From Here to Eternity*
54	*On the Waterfront*, Columbia	Elia Kazan, *On the Waterfront*

	ACTRESS AND MOVIE	ACTOR AND MOVIE
28	Janet Gaynor, *Seventh Heaven, Street Angel, Sunrise*	Emil Jannings, *The Way of All Flesh, The Last Command*
29	Mary Pickford, *Coquette*	Warner Baxter, *In Old Arizona*
30	Norma Shearer, *The Divorcee*	George Arliss, *Disraeli*
31	Marie Dressler, *Min and Bill*	Lionel Barrymore, *A Free Soul*
32	Helen Hayes, *The Sin of Madelon Claudet*	Fredric March, *Dr. Jekyll and Mr. Hyde*
33	Katharine Hepburn, *Morning Glory*	Charles Laughton, *Henry VIII*
34	Claudette Colbert, *It Happened One Night*	Clark Gable, *It Happened One Night*
35	Bette Davis, *Dangerous*	Victor McLaglen, *The Informer*
36	Luise Rainer, *The Great Ziegfeld*	Paul Muni, *The Story of Louis Pasteur*
37	Luise Rainer, *The Good Earth*	Spencer Tracy, *Captains Courageous*
38	Bette Davis, *Jezebel*	Spencer Tracy, *Boys Town*
39	Vivien Leigh, *Gone With the Wind*	Robert Donat, *Goodbye, Mr. Chips*
40	Ginger Rogers, *Kitty Foyle*	James Stewart, *The Philadelphia Story*
41	Joan Fontaine, *Suspicion*	Gary Cooper, *Sergeant York*
42	Greer Garson, *Mrs. Miniver*	James Cagney, *Yankee Doodle Dandy*
43	Jennifer Jones, *The Song of Bernadette*	Paul Lukas, *Watch on the Rhine*
44	Ingrid Bergman, *Gaslight*	Bing Crosby, *Going My Way*
45	Joan Crawford, *Mildred Pierce*	Ray Milland, *The Lost Weekend*
46	Olivia de Havilland, *To Each His Own*	Fredric March, *The Best Years of Our Lives*
47	Loretta Young, *Farmer's Daughter*	Ronald Colman, *A Double Life*
48	Jane Wyman, *Johnny Belinda*	Sir Laurence Olivier, *Hamlet*
49	Olivia de Havilland, *The Heiress*	Broderick Crawford, *All the King's Men*
50	Judy Holliday, *Born Yesterday*	Jose Ferrer, *Cyrano de Bergerac*
51	Vivien Leigh, *A Streetcar Named Desire*	Humphrey Bogart, *The African Queen*
52	Shirley Booth, *Come Back, Little Sheba*	Gary Cooper, *High Noon*
53	Audrey Hepburn, *Roman Holiday*	William Holden, *Stalag 17*
54	Grace Kelly, *Country Girl*	Marlon Brando, *On the Waterfront*

	ACTRESS (SUPPORTING ROLE)	ACTOR (SUPPORTING ROLE)
1936	Gale Sondergaard, *Anthony Adverse*	Walter Brennan, *Come and Get It*
1937	Alice Brady, *In Old Chicago*	Joseph Schildkraut, *The Life of Emile Zola*
1938	Fay Bainter, *Jezebel*	Walter Brennan, *Kentucky*
1939	Hattie McDaniel, *Gone With the Wind*	Thomas Mitchell, *Stagecoach*
1940	Jane Darwell, *The Grapes of Wrath*	Walter Brennan, *The Westerner*
1941	Mary Astor, *The Great Lie*	Donald Crisp, *How Green Was My Valley*
1942	Teresa Wright, *Mrs. Miniver*	Van Heflin, *Johnny Eager*
1943	Katina Paxinou, *For Whom the Bell Tolls*	Charles Coburn, *The More the Merrier*
1944	Ethel Barrymore, *None But the Lonely Heart*	Barry Fitzgerald, *Going My Way*
1945	Anne Revere, *National Velvet*	James Dunn, *A Tree Grows in Brooklyn*
1946	Anne Baxter, *The Razor's Edge*	Harold Russell, *The Best Years of Our Lives*
1947	Celeste Holm, *Gentleman's Agreement*	Edmund Gwenn, *Miracle on 34th Street*
1948	Claire Trevor, *Key Largo*	Walter Huston, *The Treasure of Sierra Madre*
1949	Mercedes McCambridge, *All the King's Men*	Dean Jagger, *Twelve O'Clock High*
1950	Josephine Hull, *Harvey*	George Sanders, *All About Eve*
1951	Kim Hunter, *A Streetcar Named Desire*	Karl Malden, *A Streetcar Named Desire*
1952	Gloria Grahame, *The Bad and the Beautiful*	Anthony Quinn, *Viva Zapata!*
1953	Donna Reed, *From Here to Eternity*	Frank Sinatra, *From Here to Eternity*
1954	Eva Marie Saint, *On the Waterfront*	Edmund O'Brien, *The Barefoot Contessa*

Other Academy Awards for 1954

Art direction (black and white): Richard Day, *On the Waterfront.*

Art direction (color): John Meehan, *20,000 Leagues Under the Sea.*

Cinematography (black and white): Boris Kaufman, *On the Waterfront.*

Cinematography (color): Milton Krasner, *Three Coins in the Fountain.*

Costume design (black and white): Edith Head, *Sabrina.*

Costume design (color): Sanzo Wada, *Gate of Hell.*

Documentary (feature): *The Vanishing Prairie,* Walt Disney-Buena Vista.

Documentary (short subject): *Thursday's Children,* World Wide-British Information Services.

Film editing: Gene Milford, *On the Waterfront.*

Foreign language film: *Gate of Hell,* Daiei-Edward Harrison.

Music (score of drama or comedy): Dimitri Tiomkin, *The High and the Mighty.*

Music (score of musical picture): Adolph Deutsch, Saul Chaplin, *Seven Brides for Seven Brothers.*

Music (song): "Three Coins in the Fountain," Jule Styne, Sammy Cahn.

Set decoration (color): Emile Kuri, *20,000 Leagues Under the Sea.*

Short subject (cartoon): *When Magoo Flew,* UPA-Columbia.

Short subject (1-reel): *This Mechanical Age,* Warners.

Short subject (2-reel): *A Time Out of War,* Carnival Productions.

Sound recording: Leslie I. Carey, *The Glenn Miller Story.*

Special awards: Greta Garbo, Danny Kaye, Jon Whitley and Vincent Winters, Bausch & Lomb Optical Co.

Special effects: *20,000 Leagues Under the Sea,* Walt Disney-Buena Vista.

Technical awards (Class I): Loren L. Ryder and John R. Bishop.

Technical awards (Class 3): David S. Horley, Karl Freund, Frank Crandell, Wesley C. Miller, J. W. Stafford, K. M. Frierson, John Livadary, Lloyd Russell, Roland Miller, Max Goeppinger, Carlos Rivas, G. M. Sprague, Fred Wilson, P. C. Young, Fred Knoth, Orien Ernest.

Writing (original story): Philip Yordan, *Broken Lance.*

Writing (screenplay): George Seaton, *The Country Girl.*

Writing (story and screenplay): Budd Schulberg, *On the Waterfront.*

New York Film Critics' Awards

(1—best motion picture; 2—best male performance; 3—best feminine performance; 4—best direction; 5—best foreign film; 6—special award.)

1940
1. *The Grapes of Wrath,* 20th Century-Fox
2. Charles Chaplin, *The Great Dictator* (refused award)
3. Katharine Hepburn, *The Philadelphia Story*
4. John Ford, *The Grapes of Wrath*
5. *The Baker's Wife* (French)

1941
1. *Citizen Kane,* RKO-Mercury
2. Gary Cooper, *Sergeant York*
3. Joan Fontaine, *Suspicion*
4. John Ford, *How Green Was My Valley*

1942
1. *In Which We Serve,* UA-Noel Coward
2. James Cagney, *Yankee Doodle Dandy*
3. Agnes Moorehead, *The Magnificent Ambersons*
4. John Farrow, *Wake Island*

1. *Watch on the Rhine,* Warner Bros.
2. Paul Lukas, *Watch on the Rhine*
3. Ida Lupino, *The Hard Way*
4. George Stevens, *The More the Merrier*

1. *Going My Way,* Paramount
2. Barry Fitzgerald, *Going My Way*
3. Tallulah Bankhead, *Lifeboat*
4. Leo McCarey, *Going My Way*

1. *The Lost Weekend,* Paramount
2. Ray Milland, *The Lost Weekend*
3. Ingrid Bergman, *Spellbound* and *The Bells of St. Mary's*
4. Billy Wilder, *The Lost Weekend*
5. (None)
6. *The True Glory* and *The Fighting Lady*

1. *The Best Years of Our Lives,* Goldwyn-RKO Radio
2. Laurence Olivier, *Henry V*
3. Celia Johnson, *Brief Encounter*
4. William Wyler, *The Best Years of Our Lives*
5. *Open City* (Italian)

1. *Gentleman's Agreement,* 20th Century-Fox
2. William Powell, *Life With Father*
3. Deborah Kerr, *The Adventuress* and *Black Narcissus*
4. Elia Kazan, *Gentleman's Agreement* and *Boomerang*
5. *To Live in Peace* (Italian)

1948 1. *Treasure of Sierra Madre,* Warner Bros.
2. Sir Laurence Olivier, *Hamlet*
3. Olivia de Havilland, *The Snake Pit*
4. John Huston, *Treasure of Sierra Madre*
5. *Paisan* (Italian)

1949 1. *All the King's Men,* Rossen-Columbia
2. Broderick Crawford, *All the King's Men*
3. Olivia de Havilland, *The Heiress*
4. Carol Reed, *The Fallen Idol*
5. *The Bicycle Thief* (Italian)

1950 1. *All About Eve,* 20th Century-Fox
2. Gregory Peck, *Twelve O'Clock High*
3. Bette Davis, *All About Eve*
4. Joseph L. Mankiewicz, *All About Eve*
5. *Ways of Love* (Franco-Italian)

1951 1. *A Streetcar Named Desire,* Warner Bros.
2. Arthur Kennedy, *Bright Victory*
3. Vivien Leigh, *A Streetcar Named Desire*
4. Elia Kazan, *A Streetcar Named Desire*
5. *Miracle in Milan* (Italian)

1952 1. *High Noon,* United Artists
2. Ralph Richardson, *Breaking the Sound Barrier*
3. Shirley Booth, *Come Back, Little Sheba*
4. Fred Zinnemann, *High Noon*
5. *Forbidden Games* (French)

1953 1. *From Here to Eternity,* Columbia
2. Burt Lancaster, *From Here to Eternity*
3. Audrey Hepburn, *Roman Holiday*
4. Fred Zinnemann, *From Here to Eternity*
5. *Justice Is Done* (French)
6. *A Queen Is Crowned* (JARO) and *The Conquest of Everest* (JARO)

1954 1. *On the Waterfront,* Columbia
2. Marlon Brando, *On the Waterfront*
3. Grace Kelly, *The Country Girl, Rear Window, Dial M for Murder*
4. Elia Kazan, *On the Waterfront*
5. *Gate of Hell* (Japanese)

New York Drama Critics' Circle Awards

–36 *Winterset,* by Maxwell Anderson

–37 *High Tor,* by Maxwell Anderson

–38 *Of Mice and Men,* by John Steinbeck
Shadow and Substance, by Paul Vincent Carroll [1]

–39 (No award)
The White Steed, by Paul Vincent Carroll [1]

–40 *The Time of Your Life,* by William Saroyan

–41 *Watch on the Rhine,* by Lillian Hellman
The Corn Is Green, by Emlyn Williams[1]

–42 (No award)
Blithe Spirit, by Noel Coward [1]

1942–43 *The Patriots,* by Sidney Kingsley

1943–44 (No award)
Jacobowsky and the Colonel, by Franz Werfel–S. N. Behrman[1]

1944–45 *The Glass Menagerie,* by Tennessee Williams

1945–46 (No award)
Carousel, by Rodgers and Hammerstein[2]

1946–47 *All My Sons,* by Arthur Miller
No Exit, by Jean-Paul Sartre[1]
Brigadoon, by Lerner and Loewe[2]

1947–48 *A Streetcar Named Desire,* by Tennessee Williams
The Winslow Boy, by Terence Rattigan[1]

1948–49 *Death of a Salesman,* by Arthur Miller
The Madwoman of Chaillot, by Jean Giraudoux – Maurice Valency[1]
South Pacific, by Rodgers, Hammerstein, and Joshua Logan[2]

1949–50 *The Member of the Wedding,* by Carson McCullers
The Cocktail Party, by T. S. Eliot[1]
The Consul, by Gian-Carlo Menotti[2]

1950–51 *Darkness at Noon,* by Sidney Kingsley[3]
The Lady's Not for Burning, by Christopher Fry[1]
Guys and Dolls, by Abe Burrows, Jo Swerling, and Frank Loesser[2]

1951–52 *I Am a Camera*, by John Van Druten[4]
Venus Observed, by Christopher Fry[1]
Pal Joey, by Richard Rodgers, Lorenz Hart and John O'Hara[2]
Don Juan in Hell, by George Bernard Shaw[5]

1952–53 *Picnic*, by William Inge
The Love of Four Colonels, by Peter Ustinov[1]
Wonderful Town, by Jos. Fields, Jerome Chodorov, Betty Comden, Adolph Green, Leonard Bernstein[2]

1953–54 *The Teahouse of the August Moon*, by John Patrick
Ondine, by Jean Giraudoux[1]
The Golden Apple, by John Latouche and Jerome Moross[2]

1954–55 *Cat on a Hot Tin Roof*, by Tennessee Williams
Witness for the Prosecution, by Agatha Christie[1]
The Saint of Bleecker Street, by Gian-Carlo Menotti[2]

[1] Citation for best foreign play. [2] Citation for best musical. [3] Based on a novel by Arthur Koestler. [4] Based on Christopher Isherwood's *Berlin Stories*. [5] For "distinguished and original contribution to the theater."

The Hall of Fame

The Hall of Fame for Great Americans, established in 1900 on the campus of New York University, is an open-air colonnade with busts and tablets for 81 of the 83 persons so far honored for national achievements. New names are voted on every five years by a College of Electors of approximately 100 men and women from all the states. To be elected to the Hall of Fame, an individual must have been dead more than 25 years (before 1922, the stipulation was 10 years), must have been a citizen of the U. S., and must receive a majority vote. Nominations may be made by any citizen. An election is being held late in 1955.

Names	Elected	Names	Elected
John Adams (statesman)	1900	James Kent (jurist)	1900
John Quincy Adams (statesman)	1905	Sidney Lanier (poet)	1948
Louis Agassiz (naturalist)	1915	Robert E. Lee (military officer)	1900
Susan B. Anthony (reformer)	1950	Abraham Lincoln (statesman)	1900
John James Audubon (naturalist)	1900	Henry W. Longfellow (poet)	1900
George Bancroft (historian)	1910	James Russell Lowell (poet)	1905
Henry Ward Beecher (clergyman)	1900	Mary Lyon (educator)	1905
Alexander Graham Bell (inventor)	1950	James Madison (statesman)	1900
Daniel Boone (explorer)	1915	Horace Mann (educator)	1900
Edwin Booth (actor)	1925	John Marshall (jurist)	1900
Phillips Brooks (clergyman)	1910	Matthew F. Maury (oceanographer)	1933
William Cullen Bryant (poet)	1910	Maria Mitchell (astronomer)	1900
William Ellery Channing (clergyman)	1900	James Monroe (statesman)	1933
Rufus Choate (lawyer)	1915	Samuel F. B. Morse (inventor)	1900
Henry Clay (statesman)	1900	William T. G. Morton (dentist)	1923
Samuel L. Clemens (author)	1920	John Lothrop Motley (historian)	1910
Grover Cleveland (statesman)	1935	Simon Newcomb (astronomer)	1930
James Fenimore Cooper (author)	1910	Thomas Paine (author)	1948
Peter Cooper (philanthropist)	1900	Alice Freeman Palmer (educator)	1920
Charlotte S. Cushman (actress)	1915	Francis Parkman (historian)	1910
James Buchanan Eads (engineer)	1920	George Peabody (philanthropist)	1900
Jonathan Edwards (clergyman)	1900	William Penn (colonizer)	1930
Ralph Waldo Emerson (author)	1900	Edgar Allan Poe (author)	1910
David G. Farragut (naval officer)	1900	Walter Reed (surgeon)	1948
Stephen C. Foster (song composer)	1940	Theodore Roosevelt (statesman)	1955
Benjamin Franklin (statesman)	1900	Augustus Saint-Gaudens (sculptor)	1920
Robert Fulton (inventor)	1900	William T. Sherman (army officer)	1900
Josiah Willard Gibbs* (physicist)	1950	Joseph Story (jurist)	1900
William Crawford Gorgas (physician)	1950	Harriet Beecher Stowe (author)	1910
Ulysses S. Grant (statesman)	1900	Gilbert Charles Stuart (painter)	1900
Asa Gray (botanist)	1900	Booker T. Washington (educator)	1940
Alexander Hamilton (statesman)	1915	George Washington (statesman)	1900
Nathaniel Hawthorne (author)	1900	Daniel Webster (statesman)	1900
Joseph Henry (physicist)	1915	J. A. McNeill Whistler (painter)	1930
Patrick Henry (statesman)	1920	Walt Whitman (poet)	1920
Oliver Wendell Holmes (author)	1910	Eli Whitney (inventor)	1930
Mark Hopkins (educator)	1915	John Greenleaf Whittier (poet)	1900
Elias Howe (inventor)	1915	Emma Willard (educator)	1900
Washington Irving (author)	1900	Frances Elizabeth Willard (reformer)	1900
Andrew Jackson (statesman)	1910	Roger Williams (clergyman)	1900
Thomas Jefferson (statesman)	1900	Woodrow Wilson* (statesman)	1955
John Paul Jones (naval officer)	1925		

* Not yet represented by a bust and tablet.

AVIATION

★

Famous Firsts in Aviation

THOUGH man succeeded in making powered flight only a half century ago, his dreams of flying go back to mythology.

The principle of jet propulsion, for example, was understood and put into design form some 2,000 years ago by Hero, an Alexandrian philosopher. And as far back as A.D. 1232 Genghis Khan's son, Ogdai, used rockets as a "secret weapon" in an attack on the Tartar city of Kaifeng. In 1480, Leonardo da Vinci drew sketches for what we now call helicopters.

Man's first aeronautical successes came in balloons.

1782—First balloon flight. Jacques and Joseph Montgolfier of Annonay, Fr., sent up a small smoke-filled balloon about mid-November.

1783—First hydrogen-filled balloon flight. Jacques A. C. Charles, Paris physicist, supervised construction by A. J. and M. N. Robert of a 13-ft. diameter balloon which was filled with hydrogen. It got up to about 3,000 ft. and traveled about 16 mi. in a 45-min. flight (Aug. 27).

1783—First human balloon flights. A Frenchman, Jean Pilâtre de Rozier, made the first captive balloon ascension (Oct. 15). With the Marquis d'Arlandes, Pilâtre de Rozier made the first free flight, reaching a peak altitude of about 500 ft., and traveling about 5½ mi. in 20 min. (Nov. 21).

1784—First powered balloon. Gen. Jean Baptiste Marie Meusnier developed the first propeller-driven and elliptically-shaped balloon—the crew cranking three propellers on a common shaft to give the craft a speed of about 3 mi. per hr.

1784—First woman to fly. Mme. Thible, a French opera singer (June 4).

1793—First balloon flight in America. Jean Pierre Blanchard, a French pilot, made it from Philadelphia to near Woodbury, Gloucester Co., N. J., in a little over 45 min. (Jan. 9).

1794—First military use of the balloon. Jean Marie Coutelle, using a balloon built for the French Army, made two 4 hr. observation ascents. The military value of the ascents seems to have been in damage to the enemy's morale.

1797—First parachute jump. André-Jacques Garnerin dropped from about 6,500 ft. over Monceau Park in Paris in a 23-ft. diameter 'chute made of white canvas with a basket attached (Oct. 22).

1843—First air transport company. In London, William S. Henson and John Stringfellow filed articles of incorporation for the Aerial Transit Company (Mar. 24). It failed.

1852—First dirigible. Henri Giffard, a French engineer, flew in a controllable (more or less) steam engine-powered balloon, 144 ft. long and 39 ft. in diameter, inflated with 88,000 cu. ft. of coal gas. It reached 6.7 mi. per hr. on a flight from Paris to Trappe (Sept. 24).

1860—First aerial photographers. Samuel Archer King and William Black made two photos of Boston, still in existence.

1872—First gas-engine powered dirigible. Paul Haenlein, a German engineer, flew in a semi-rigid frame dirigible, powered by a 4-cylinder internal combustion engine running on coal gas drawn from the supporting bag.

1873—First transatlantic attempt. *The New York Daily Graphic* sponsored the attempt with a 400,000 cu. ft. balloon carrying a lifeboat. A rip in the bag during inflation brought collapse of the balloon and the project.

1897—First successful metal dirigible. An all-metal dirigible, designed by David Schwarz, a Hungarian, took off from Berlin's Tempelhof Field and, powered by a 16-hp. Daimler engine, got several miles before leaking gas caused it to crash (Nov. 13).

1900—First Zeppelin flight. Germany's Count Ferdinand von Zeppelin flew the first of his long series of rigid-frame airships. It attained a speed of 18 mi. per hr. and got 3½ mi. before its steering gear failed (July 2).

1903—First successful heavier-than-air machine flight. Aviation was really born on the sand dunes at Kitty Hawk, N. C., When Orville Wright crawled to his prone position between the wings of the biplane he and his brother Wilbur had built, opened the throttle of their home-made 12-hp. engine and took to the air. He covered 120 ft. in 12 sec. Later that day, in one of four flights, Wilbur stayed up 59 sec. and covered 852 ft. (Dec. 17).

1904—First airplane maneuvers. Orville Wright made the first turn with an airplane (Sept. 15); 5 days later his brother Wilbur made the first complete circle.

1905—First airplane flight over half an hour. Orville Wright kept his craft up 33 min. 17 sec. (Oct. 4.).

1906—First European airplane flight. Alberto Santos-Dumont, a Brazilian, flew a heavier-than-air machine at Bagatelle Field, Paris (Sept. 13).

1908—First airplane fatality. Lt. Thomas E. Selfridge, U. S. Army Signal Corps, was in a group of officers evaluating the Wright plane at Fort Myer, Va. He was up about 75 ft. with Orville Wright when the propeller hit a bracing wire and was broken, throwing the plane out of control, killing Selfridge and seriously injuring Wright (Sept. 17).

1910—First licensed woman pilot. Baroness Raymonde de la Roche of France, who learned to fly in 1909, received ticket No. 36 on March 8.

1910—First flight from shipboard. Eugene Ely took a Curtiss plane off from the deck of cruiser *Birmingham* at Hampton Roads, Va., and flew to Norfolk (Nov. 14). The following January he reversed the process, flying from Camp Selfridge to the deck of the battleship *Pennsylvania* in San Francisco Bay (Jan. 18).

1911—First U. S. woman pilot. Harriet Quimby, a magazine writer, who got ticket No. 37.

1913—First multi-engined aircraft. Built and flown by Igor Ivan Sikorsky while still in his native Russia.

1914—First aerial combat. In August, Allied and German pilots and observers started shooting at each other with pistols and rifles—with negligible results.

1915—First air raids on England. German Zeppelins started dropping bombs on four English communities (Jan. 19).

1918—First U. S. air squadron. The U. S. Army Air Corps made its first independent raids over enemy lines, in DH-4 planes (British-designed) powered with 400-hp. American-designed Liberty engines (Apr. 8).

1918—First regular airmail service. Operated for the Post Office Department by the Army, the first regular service was inaugurated with one round trip a day (except Sunday) between Washington, D. C., and New York City (May 15).

1919—First transatlantic flight. The NC-4, one of four Curtiss flying boats commanded by Lt. Comdr. Albert C. Read, reached Lisbon, Port. (May 27) after hops from Trepassy Bay, Nfd. to Horta, Azores (May 16–17), to Ponta Delgada (May 20). The Liberty-powered craft was piloted by Walter Hinton.

1919—First nonstop transatlantic flight. Capt. John Alcock and Lt. Arthur Whitten Brown, British World War I flyers, made the 1,900 mi. from St. John's, Nfd. to Clifden, Ire., in 16 hr. 12 min. in a Vickers-Vimy bomber with two 350-hp. Rolls-Royce engines (June 15–16).

1919—First lighter-than-air transatlantic flight. The British dirigible R-34, commanded by Maj. George H. Scott, left Firth of Forth, Scot. (July 2) and touched down at Mineola, L. I., 108 hr. later. The eastbound trip was made in 75 hr. (completed July 13).

1919—First scheduled passenger service (using airplanes). Aircraft Travel and Transport inaugurated London-Paris service (Aug. 25). Later the company started the first trans-channel mail service on the same route (Nov. 10).

1921—First naval vessel sunk by aircraft. Two battleships being scrapped by treaty were sunk by bombs dropped from Army planes in demonstration put on by Brig. Gen. William S. Mitchell (July 21).

1921—First helium balloon. The C-7, nonrigid Navy dirigible was first to use noninflammable helium as lifting gas, making a flight from Hampton Roads, Va., to Washington, D. C. (Dec. 1).

1922—First member of Caterpillar Club. Lt. (later Maj. Gen.) Harold Harris bailed out of a crippled plane he was testing at McCook Field, Dayton, Ohio (Oct. 20), and became the first man to join the Caterpillar Club—those whose lives have been saved by parachute.

1923—First nonstop transcontinental flight. Lts. John A. Macready and Oakley Kelly flew a single-engine Fokker T-2 nonstop from New York to San Diego, a distance of just over 2,500 mi. in 26 hr. 50 min. (May 2–3).

1923—First autogyro flights. Juan de la Cierva, brilliant Spanish mathematician, made the first successful flight in a rotary wing aircraft in Madrid (June 9).

1924—First round-the-world flight. Four Douglas Cruiser biplanes of the U. S. Army Air Corps took off from Seattle under command of Maj. Frederick Martin (Apr. 6). 175 days later two of the planes (Lt. Lowell Smith's and Lt. Erik Nelson's) landed in Seattle after a circuitous route—one source saying 26,345 mi., another saying 27,553 mi.

1926—First polar flight. Then-Lt. Cmdr. Richard E. Byrd, acting as navigator, and Floyd Bennett as pilot, flew a trimotor Fokker from Kings Bay, Spitsbergen, over the North Pole and back in 15½-hr. flight (May 8–9).

1927—First solo transatlantic flight. Charles Augustus Lindbergh lifted his Wright-powered Ryan monoplane, *Spirit of St. Louis,* from Roosevelt Field, L. I., to stay aloft 33 hr. 39 min. and cover 3,600 mi. to Le Bourget Field outside Paris (May 20–21).

1927—First transatlantic passenger. Charles A. Levine was piloted by Clarence D. Chamberlin from Roosevelt Field, L. I., to Eisleben, Ger., in a Wright-powered Bellanca (June 4–5).

1928—First east-west transatlantic crossing. Baron Guenther von Huenefeld, piloted by German Capt. Hermann Koehl and Irish Capt. James Fitzmaurice, left Dublin for New York City (Apr. 12) in a single-engine all-metal Junkers monoplane. Some 37 hr. later they cracked up on Greenly Island, Labrador. Rescued.

1928—First U. S.–Australia flight. Sir Charles Kingsford-Smith and Capt. Charles T. P. Ulm, Australians, and two American navigators, Harry W. Lyon and James Warner, crossed the Pacific from Oakland to Brisbane. They went via Hawaii and the Fiji Islands in a trimotor Fokker (May 31–June 8).

1928—First trans-Arctic flight. Sir Hubert Wilkins, Australian explorer, piloted by Carl Ben Eielson, flew from Point Barrow, Alaska, to Spitsbergen (mid-April).

1929—First of the endurance records. With Air Corps Maj. Carl Spaatz in command and Capt. Ira Eaker as chief pilot, an Army Fokker, aided by refueling in the air, remained aloft 150 hr. 40 min. at Los Angeles (Jan. 1–7).

1929—First blind flight. James H. Doolittle proved the feasibility of instrument flying when he took off and landed entirely on instruments (Sept. 24).

1929—First rocket engine flight. Fritz von Opel, German auto maker, stayed aloft in his small rocket-powered craft for 75 sec., covering nearly 2 mi. (Sept. 30).

1929—First South Pole flight. Comdr. Richard E. Byrd, with Bernt Balchen as pilot, Harold I. June, radio operator, and Capt. A. C. McKinley, photographer, flew a trimotor Fokker from the Bay of Whales, Little America, over the South Pole and back (Nov. 28–29).

1930—First Paris–New York nonstop flight. Dieudonné Coste and Maurice Bellonte, French pilots, flew a Hispano-powered Breguet biplane from Le Bourget Field to Valley Stream, L. I., in 37 hr. 18 min. (Sept. 2–3).

1931—First flight into the stratosphere. Prof. Auguste Piccard, Swiss physicist, and Charles Knipfer, ascended in a balloon from Augsburg, Ger., and reached a height of 51,793 ft. in a 17-hr. flight that terminated on a glacier near Innsbruck, Austria (May 27).

1931—First nonstop transpacific flight. Hugh Herndon and Clyde Pangborn took off from Sabishiro Beach, Japan, dropped their landing gear and flew 4,860 mi. to near Wenatchee, Wash., in 41 hr. 13 min. (Oct. 4–5).

1932—First woman's transatlantic solo. Amelia Earhart, flying a Pratt & Whitney Wasp-powered Lockheed Vega, flew alone from Harbor Grace, Nfd., to Ireland in approximately 15 hr. (May 20–21).

1932—First westbound transatlantic solo. James A. Mollison, British pilot, took a de Havilland Puss Moth from Portmarnock, Ire., to Pennfield, N. B. (Aug. 18).

1932—First woman airline pilot. Ruth Rowland Nichols, first woman to hold three international records at the same time—speed, distance, altitude—was employed by N. Y.-New England Airways.

1933—First round-the-world solo. Wiley Post took a Lockheed Vega, *Winnie Mae*, 15,596 mi. around the world in 7 days 18 hr. 49½ min. (July 15–22).

1937—First successful helicopter. Hanna Reitsch, German woman pilot, flew Dr. Heinrich Focke's FW-61 in free, fully-controlled flight at Bremen (July 4).

1939—First turbojet flight. Just before their invasion of Poland, the Germans flew a Heinkel He-178 plane powered by a Heinkel S3B turbojet (Aug. 27).

1942—First American jet plane flight. Robert Stanley, chief pilot for Bell Aircraft Corp., flew the Bell XP-59 *Airacomet* at Muroc Army Base, Calif. (Oct. 1).

1947—First piloted supersonic flight in an airplane. Capt. Charles E. Yeager, U. S. Air Force, flew the X-1, rocket-powered research plane built by Bell Aircraft Corp., faster than the speed of sound at Muroc Air Force Base, Calif. (Oct. 14).

1949—First round-the-world nonstop flight. Capt. James Gallagher and USAF crew of 13 flew a Boeing B-50A Superfortress around the world nonstop from Ft. Worth, Tex., returning to same point; 23,452 mi. in 94 hr. 1 min., with 4 aerial refuelings enroute (Feb. 27–Mar. 2).

1950—First nonstop transatlantic jet flight. Col. David C. Schilling (USAF) flew 3,300 mi. from England to Limestone, Maine, in 10 hr. 1 min. (Sept. 22).

1950—First jet-plane battle. Four U. N. jets attacked by 8 to 12 Communist jets near Sinuiju, Korea. One enemy jet reported shot down; no U. N. losses (Nov. 8). International: 1,217.14 mi.

1951—First solo across North Pole. Charles F. Blair, Jr., flew a converted P-51 (May 29).

1952—First jetliner service. De Havilland Comet flight inaugurated by BOAC between London and Rome (Apr. 21). Round trip: 4 hr. 46 min. flying time.

1952—First transatlantic helicopter flight. Capt. Vincent H. McGovern and 1st Lt. Harold W. Moore piloted 2 Sikorsky H-19s from Westover, Mass., to Prestwick, Scot. (3,410 mi.). Trip was made in 5 steps, with flying time of 42 hr. 25 min. (July 15-31).

1952—First transatlantic round trip in same day. British Canberra twin-jet bomber flew from Aldergrove, N. Ire., to Gander, Nfld., and back in 7 hr. 59 min. flying time (Aug. 26).

1955—First transcontinental round trip in same day. Lt. John M. Conroy piloted F-86 Sabrejet across U. S. (Los Angeles–New York) and back—5,085 mi.—in 11 hr. 33 min. 27 sec. (May 21).

International Airplane Records

Source: National Aeronautic Association.

(over 3-kilometer—1.864 mi. course)

Speed (mph)	Date	Type plane	Pilot	Place
266.58	Nov. 4, '23	Curtiss	Lt. Williams (U.S.A.)	Mineola
278.48	Dec. 11, '24	Ferbois	Adj. Bonnet (France)	Istres
294.38	Sept. 5, '32	.....	Maj. J. H. Doolittle (U.S.A.)	Cleveland
304.98	Sept. 4, '33	Wedell-Williams	James R. Wedell (U.S.A.)	Glenview, Ill.
314.32	Dec. 25, '34	Caudron	Raymond Delmotte (France)	Istres
352.39	Sept. 13, '35	Hughes Special	Howard Hughes (U.S.A.)	Santa Anna
379.63	Nov. 11, '37	BF-113R	Herman Wurster (Germany)	Augsburg
469.22	Apr. 26, '39	ME-109R	Fritz Wendel (Germany)	Augsburg
606.25	Nov. 7, '45	Gloster Meteor IV	Gp. Capt. H. Wilson (Gr. Britain)	Herne Bay
615.78	Sept. 7, '46	Gloster Meteor	Gp. Capt. E. M. Donalson (Gr. Britain)	Little Hampton
650.80	Aug. 25, '47	Douglas D-558	Maj. Marion Carl, USMC (U.S.A.)	Muroc AF, Calif.
670.98	Sept. 15, '48	North American F-86A	Maj. R. L. Johnson (USAF)	Muroc AF, Calif.
698.51	Nov. 19, '52	North American F-86D	Capt. James S. Nash (USAF)	Salton Sea, Calif.
755.15	Oct. 29, '53	North American YF	Lt. Col. F. K. Everest, Jr. (USAF)	Salton Sea, Calif.
800+*	Aug. 20, '55	North American F-100C	Col. Horace A. Hanes (U.S.A.)	Palmdale, Calif.

(Fastest U. S. transcontinental—Lt. Col. Robert R. Scott, Republic F-84F from Los Angeles International Airport to Floyd Bennett Field, N. Y.—2,445.9 mi. in 3 hrs., 44 min., 54 sec., average speed 652.5 mph.—Mar. 9, 1955.

*Unofficial

Distance

Distance (mi.)	Date	Crew	From	To
3,352.91	Oct. 28–29, '26	Lt. Costes & Capt. Rignot (France)	Le Bourget	Jask
3,910.90	June 4–6, '27	Clarence D. Chamberlin, C. A. Levine (U.S.A.)	New York	Eisleben, Germany
4,466.57	July 3–5, '28	Majs. A. Ferrarin, Del Prete (Italy)	Rome	Touros
4,911.93	Sept. 27–29, '29	Costes & Bellonte (France)	Le Bourget	Moulant
5,011.35	July 28–30, '31	Russel N. Boardman, John Polando (U.S.A.)	New York	Istanbul
5,656.93	Aug. 5–7, '33	Maurice Rossi, Paul Codos (France)	New York	Ryack
6,305.66	July 12–14, '37	Col. M. Gromov, Youmachev, Daniline (U.S.S.R.)	Moscow	San Jacinto, Calif.
7,158.44	Nov. 5–7, '38	Sqd. Ldr. R. Kellett (Gr. Britain)	Ismalia (Suez)	Darwin
7,916.00	Nov. 19–20, '45	Col. C. S. Irvine & Lt. Col. G. R. Stanley, (U.S.A.)	Guam	Washington, D. C.
11,235.60	Sept. 29–Oct. 1, '46	Comdr. Thomas D. Davies, Comdrs. Eugene P. Ranklin, Walter S. Reid, Lt. Comdr. Ray A. Tabeling (U.S.A.)	Perth, Australia	Columbus, Ohio

(Longest light airplane distance and longest solo, international—William P. Odom, U. S. Beech Bonanza (185 hp.) from Honolulu, Hawaii to Teterboro, N. J., 4,957.24 mi., March 8–9, 1949.)

Distance (Closed Course)

Distance (mi.)	Date	Crew	Place
2,895.970	Aug. 3–5, '27	Edzard & Ristics (Germany)	Dessau
4,763.800	June 1–2, '28	Capt. Ferrarin & Del Prete (Italy)	Casal e del Paati
4,988.969	Dec. 15–17 '30	Costos & Codos (France)	Istres
5,088.267	May 31—June 2, '30	Maj. U. Maddalena & Lt. F. Cecconi (Italy)	Montecelio
6,444.881	June 7–10, '31	J. LeBrix & M. Doret (France)	Istres
6,587.441	Mar. 23–26, '32	Bossoutrot & Rossi (France)	Oran
7,239.588	May 13–15, '38	Comm. Fujita & Sgt. Maj. Takahashi (Japan)	Kisarasu
8,037.899	July 30—Aug. 1, '39	Angelo Tondi, Roberto Dagasso, Ferrucio Vignoli (Italy)	Rome
8,854.308	Aug. 1–2, '47	Lt. Col. O. F. Lassiter (U.S.) Capt. W. J. Valentine (U.S.)	Tampa, Fla.

Altitude

Height (feet)	Date	Crew	Place
38,419	July 25, '27	Lt. C. C. Champion (U.S.A.)	Washington
41,795	May 26, '29	Willi Neuenhofen (Germany)	Dessau
43,166	June 4, '30	Lt. Apollo Soucek (U.S.A.)	Washington
43,976	Sept. 16, '32	Capt. Cyril F. Uwins (Gr. Britain)	Filton, Bristol
44,819	Sept. 28, '33	G. Lemoine (France)	Villacoublay
47,352	April 11, '34	Com. Renato Donati (Italy)	Rome
49,994	Sept. 28, '36	Sqd. Ldr. S. R. D. Swain (Gr. Britain)	South Farnborough
53,937	June 30, '37	Fl. Lt. M. J. Adam (Britain)	Farnborough
56,046	Oct. 22, '38	Col. Mario Pezzi (Italy)	Montecelio
59,445*	Mar. 23, '48	John Cunningham (Gr. Britain)	Hatfield
63,668*	May 4, '53	Walter F. Gibb (Gr. Britain)	Bristol

* Jet-propelled aircraft.

Absolute Altitude—72,394.795 ft. Capts. Orvil Anderson & Albert Stevens, U. S., Nov. 11, 1935 from Rapid City, S. D., in balloon. U. S. Airplane Record—47,910 ft. Maj. F. F. Ross, pilot, Lt. D. M. Davis, copilot, Lts. L. B.

Helicopter Records

Source: National Aeronautic Association.

DISTANCE, AIRLINE

International: 1,217.14 mi.
Elton J. Smith (U. S.) in Bell 47-D1 helicopter powered by 200-hp. Franklin; from Ft. Worth, Tex., to Niagara Falls, N. Y., Sept. 17, 1952.

DISTANCE, CLOSED CIRCUIT

International: 778.311 mi.
Jean Boulet (France) in S.E. 3 120 Helicopter powered by 200-hp. Salmson 9 NH; Buc-Etampes-Rambouillet course, July 2, 1953.

ALTITUDE

International: 24,521 ft.
W/O Billy I. Wester (USA) in Sikorsky XH-39 powered by 425-hp. Turbomeca Artouste II; Bridgeport, Conn., Oct. 17, 1954.

MAXIMUM SPEED

International: 156.006 mph.
W/O Billy I. Wester (USA) in Sikorsky XH-39 powered by 425-hp. Turbomeca Artouste II; Windsor Locks, Conn., Aug. 26, 1954.

SPEED FOR 100 K.M. (CLOSED COURSE)

International: 122.749 mph.
Harold E. Thompson (U. S.) in Sikorsky S-52-1 powered by 245-hp. Franklin; Milford, Conn., May 6, 1949.

SPEED FOR 500 K.M. (CLOSED CIRCUIT)

International: 66.607 mph.
Jean Boulet (France) in S.E. 3 120 Helicopter powered by 200-hp. Salmson 9 NH; Buc-Etampes-Rambouillet course, July 2, 1952.

SPEED FOR 1,000 K.M. (CLOSED CIRCUIT)

International: 66.642 mph.
Majs. D. H. Jensen & W. C. Dodds (U. S.) in Sikorsky R-5A powered by 450-hp. Prat & Whitney; Dayton, Ohio, Nov. 14, 1946.

Certificated U. S. Airplane Pilots

Source: Civil Aeronautics Administration.

Year (As of Dec. 31)	Total	Airline transport	Commercial	Private
1939	33,706	1,197	11,677	20,832
1940	69,829	1,431	18,791	49,607
1941	129,947	1,587	34,578	93,782
1942	166,626	2,177	55,760	108,689
1943	173,206	2,315	63,940	106,950
1944	183,383	3,046	68,449	111,888
1945	296,895	5,815	162,873	128,207
1946	400,061	7,654	203,251	189,156
1947	433,241[1]	7,059[1]	181,912[1]	244,270[1]
1948	491,306[2]	7,762[2]	176,845[2]	306,699[2]
1949	525,174	9,025	187,769	328,380
1951	580,574	10,813	197,000	371,861
1952	581,218	11,357	193,575	376,286
1953	585,974	12,757	195,363	377,854
1954[3]	596,128	13,137	197,995	384,996

[1] As of April 1, 1948. [2] As of May 1, 1949. [3] As of July 1, 1954. NOTE: No figures available for 1950.

U. S. Scheduled Airlines, 1954

Source: Civil Aeronautics Board.

Airline	Certificated route mileage[1]	Revenue passenger miles, 1954[2]
Domestic (Trunk)		
American	19,981	3,371,860,000
Braniff	10,979	525,399,000
Capital	7,370	745,562,000
Colonial	1,433	97,622,000
Continental	4,447	166,540,000
Catalina	47	[3]
Delta	13,309	786,887,000
Eastern	18,291	2,847,082,000
National	2,715	693,947,000
Northeast	3,216	104,227,000
Northwest	10,954	748,617,000
Trans World (TWA)	15,655	2,611,014,000
United	15,996	3,134,568,000
Western	5,525	401,313,000
Total	129,918	16,234,638,000
Domestic (Local Service)		
Allegheny	2,611	42,087,000
Bonanza	1,333	17,442,000
Braniff	1,682	11,668,000
Central	2,663	8,644,000
Frontier	5,074	37,464,000
Helicopter (Chicago)	315	[4]
Helicopter (Los Angeles)	523	[4]
Helicopter (New York)	406	[4]
Lake Central	1,705	11,124,000
Mohawk	1,269	39,156,000
North Central	2,653	47,456,000
Ozark	2,860	24,707,000
Piedmont	3,003	61,923,000
Pioneer	2,027	42,123,000
Southern	1,908	22,397,000
Southwest	1,272	34,840,000
Trans-Texas	3,423	30,643,000
West Coast	2,070	29,509,000
Total	36,617	461,183,000
Foreign or Overseas		
Aerovias Sud Americana[5]	2,644	.....
American	1,538	76,390,000
Braniff	7,870	80,409,000
Caribbean Atl.	460	10,006,000
Colonial	2,030	33,567,000
Delta	3,270	49,328,000
Eastern	3,570	198,700,000
Hawaiian	379	51,098,000
Mackey	230	[4]
Midet	235	[4]
National	114	50,070,000
Northwest	15,139	161,057,000
Pan American	148,512	2,189,668,000
Panagra	10,438	149,099,000
Resort	[6]	5,289,000
Samoan	93	[4]
South Pacific	2,776	[4]
Trans-Pacific	379	21,611,000
Trans World (TWA)	29,728	573,979,000
United	2,898	171,023,000
UMCA	378	885,000
Western	1,640	[3]
Total	231,667	3,822,179,000

[1] As of Dec. 31, 1954. [2] Calendar year. [3] Not operating. [4] Insufficient data. [5] All-cargo carrier. [6] No data. Cruise carrier.

Representative American Aircraft Types

Source: Civil Aeronautics Administration.

Manufacturer[1]	Model	Max. std. seats	No. and make engine	Max. hp. per engine	Never exceed speed mph	Normal oper. speed (cruise)	Max. weight	Span	Length
Transport									
Boeing Airplane Co.	377	93	4 P & W	3500	351	312	145,800	141′ 3″	110′ 4″
Convair Div.	240	51	2 P & W	2400	306	270	42,500	91′ 9″	74′ 8″
	340	51	2 P & W	2400	306	270	46,500	105′ 8″	79′ 2″
Douglas A. C.	DC-3	35	2 P & W	1200	262	217	26,900	95′ 0″	64′ 5½″
	DC-4	86	4 P & W	1450	300	250	73,000	117′ 6″	93′ 5″
	DC-6	87	4 P & W	2400	360	300	97,200	117′ 6″	100′ 7″
	DC-6A, B	112	4 P & W	2500	360	300	107,000	117′ 6″	108′ 11″
	DC-7	99	4 Wright	3250	360	310	122,200	117′ 6″	108′ 11″
Lockheed A. Corp.	749	87	4 Wright	2500	324	271	107,000	123′ 0″	95′ 3″
	1049	96	4 Wright	2800	338	300	120,000	123′ 0″	95′ 3″
	1049C	102	4 Wright	3250	338	300	133,000	123′ 0″	113′ 6″
	1049G	112	4 Wright	3250	338	300	137,500	123′ 0″	113′ 6″
G. L. Martin Co.	202A	53	2 P & W	2400	292	255	43,000	93′ 3⅜″	71′ 4″
	404	53	2 P & W	2400	301	265	44,900	93′ 3⅜″	74′ 7″
Personal & Executive									
Aero Des. & Eng. Co.	520	5	2 Lycoming	260	270	200	5,500	43′ 10″	34′ 0″
	560	7	2 Lycoming	270	270	200	6,000	44′ 0″	34′ 3″
Aeronca Mfg. Corp.	15AC	4	1 Continental	145	139	110	2,050	37′ 6″	25′ 3″
Beech A. Corp.	F35	4	1 Continental	205	202	175	2,750	32′ 10″	25′ 2″
	C50	6	2 Lycoming	275	230	180	6,000	45′ 3″	31′ 6″
	E18S	10	2 P & W	450	256	205	9,300	47′ 7″	33′ 11½″
Cessna A. C.	180	4	1 Continental	225	184	160	2,550	36′ 0″	25′ 0″
	195B	5	1 Jacobs	275	200	178	3,350	36′ 2″	27′ 4″
	310	5	2 Continental	240	246	200	4,600	36′ 0″	27′ 0″
Helio A. Corp.	H-391B	4	1 Lycoming	260	189	150	2,800	35′ 0″	27′ 3″
Piper A. Corp.	PA-18	2	1 Lycoming	150	138	...	1,760	.....	.....
	PA-22	4	1 Lycoming	125	158	126	1,800	29′ 4″	20′ 7″
	PA-23	4	2 Lycoming	150	208	165	3,500	37′ 0″	27′ 1″
Ryan Aero. Co.	Navion B	4	1 Lycoming	260	190	169	2,850	33′ 4½″	27′ 3″
Taylorcraft, Inc.	20	4	1 Continental	208	170	141	2,750	.....	.....
Temco A. Corp.	D16A (Twin Navion)	4	2 Lycoming	160	180	....	4,600	33′ 5″	27′ 2″
Helicopters									
Bell A. Corp.	47G	3	1 Franklin	200	90	...	2,350	.....	.....
Hiller Helicopters	UH-12B	3	1 Franklin	200	84	...	2,500	.....	.....
Kaman A. Corp.	K-240	2	1 Lycoming	250	87	...	3,000	.....	.....
Sikorsky A. Div.	S-52-2	4	1 Franklin	245	115	...	2,700	.....	.....
	S-55	12	1 P & W	550	...	...	7,200	.....	.....

[1] A. C.—Aircraft Company; A. Corp.—Aircraft Corporation; A. Div.—Aircraft Division.

America's Warplane Production Record, 1940-45

Source: Civil Aeronautics Administration.

Type	1940	1941	1942	1943	1944	1945	1940–45
Total	6,019	19,433	47,836	85,898	96,318	47,714	303,218
Bombers	1,191	4,115	12,627	29,355	35,003	16,492	98,783
Fighters	1,685	4,416	10,769	23,988	38,873	21,696	101,427
Photographic and reconnaissance	121	727	1,468	734	259	531	3,840
Transport	290	532	1,984	7,012	9,834	4,629	24,281
Trainer	2,731	9,373	17,631	19,939	7,577	1,309	58,560
Other*	1	270	3,357	4,870	4,772	3,057	16,327

* Includes special purpose, rotary wing, and liaison aircraft.

Important American Aircraft Types (U. S. Air Force)

Source: U. S. Department of Defense.

Type	Manufacturer	Power plant[1]	Maximum take-off ratings	Span, ft.	Length, ft.	Height, ft.	Weight	Speed	Crew
BOMBERS									
B-26A thru F	Douglas	2 R2800 P-79	2,000 hp.	70.0	51.3	18.5	40,000	Over 300[3]	3
B-29 & B-29A	Boeing	4 R3350 W-57 or 57A	2,200 hp.	141.2	99.0	27.8	140,000	345[3]	11
B-36D thru J	Convair	6 R4360 P-53	3,800 hp.	230.0	162.1	46.8	400,000	Over 435	15
		4 J47 GE-19	5,200 lb.						
B-47E	Boeing	6 J47 GE-25	6,000 lb.	116.0	107.1	28.0	200,000	600 class	3
B-50B	Boeing	4 R4360 P-35	3,500 hp.	141.2	99.0	32.7	170,000	Over 400	10
B-52A	Boeing	8 J57 P-1	10,000 lb.	185.0	156.5	48.3	350,000	Over 600	6
B-57B	Martin	2 J65 W-5	7,200 lb.	64.0	65.5	14.8	50,000	Over 500[3]	2
B-66	Douglas	2 J71 A-9	.....	72.5	75.1	23.6	.....	600–700	3
FIGHTERS									
F-80C	Lockheed	1 J33 A-31 or 35	5,200 lb.	38.9	34.5	11.3	16,000	600 class	1
RF-84F	Republic	1 J65 W-3	7,200 lb.	33.6	47.4	15.0	25,000	Over 600	1
F-84G	Republic	1 J35 A-29	5,600 lb.	36.4	38.1	12.6	18,000	600 class	1
F-86D	North American	1 J47 GE-33	7,650 lb.[2]	37.1	40.3	15.0	18,000	650 class	1
F-86F	North American	1 J47 GE-27	5,970 lb.	37.1	37.5	14.7	17,000	650 class	1
F-86H	North American	1 J73 GE-3	.....	37.1	38.8	15.0	.....	Over 650	1
F-89C	Northrop	2 J35 A-33	5,600 lb.	56.1	53.4	17.6	40,000	600 class	2
F-89D	Northrop	2 J35 A-35	5,600 lb.	57.8	53.8	17.5	40,000	600 class	2
F-94C	Lockheed	1 J48 P-5	6,250 lb.	37.3	44.5	14.9	20,000	600 class	2
F-100A	North American	1 J57 P-7	10,000 lb.	36.8	46.2	13.3	.....	Supersonic	1
F-101A	McDonnell	2 J57 P-13	10,000 lb.	39.7	67.4	18.0	.....	Supersonic	1
F-102A	Convair	1 J57 P-11	10,000 lb.	37.0	52.5	18.0	.....	Supersonic	1
F-104	Lockheed	Curtiss-Wright J65	Over 7,200	....	....	....	.....	Supersonic	1
TRANSPORTS									
C-45H	Beech	2 R985-AN-14B P	450 hp.	47.6	34.2	10.7	9,000	190 top[3]	2
C-47D	Douglas	2 R1830-90D P	1,200 hp.	95.0	64.4	16.9	33,000	200 top[3]	5
C-54G	Douglas	4 R2000-9 P	1,450 hp.	117.5	93.8	27.5	82,500	300 top	3
C-74	Douglas	4 R4360-49 P	3,500 hp.	173.3	124.2	43.8	165,000	Over 300	5
C-97C	Boeing	4 R4360-35A P	3,250 hp.	141.2	110.3	38.3	175,000	Over 350	5
C-118A	Douglas	4 R2800-52W P	2,200 hp.	117.5	106.8	28.8	107,000	360	5
C-119G	Fairchild	2 R3350-85 W	3,250 hp.	109.3	86.5	26.2	74,000	250	5
C-121B	Lockheed	4 R3350-75 W	2,500 hp.	123.0	95.3	23.0	100,000	350 top	5
C-123B	Fairchild	2 R2800-99W P	2,500 hp.	110.0	75.7	34.1	50,000	240 top	2
C-124C	Douglas	4 R4360-63 P	3,800 hp.	174.1	130.0	48.3	185,000	Over 300	5
C-130	Lockheed	4 T56-A-1	3,750 hp.	132.7	94.8	38.3	108,000	.....	4
C-131B	Convair	2 R2800-99W P	2,500 hp.	105.3	79.2	28.1	47,000	265 top[3]	2
HELICOPTERS									
H-5H	Sikorsky	1 R985-AN5 P	450 hp.	49.0	41.1	13.0	6,500	105 top	2
H-13E	Bell	1 O-335-SA	200 hp.	35.1	31.0	9.5	2,500	100	1
H-19A	Sikorsky	1 R1340-57 P	600 hp.	53.0	42.1	15.5	8,000	Over 90	2
H-21C	Piasecki	1 R1820-103 W	1,425 hp.	44.0	52.5	14.5	15,000	Over 110[3]	2
H-23B	Hiller	1 Franklyn 6V4-200-C-33	200 hp.	35.0	38.5	9.8	2,500	84	1
H-25	Piasecki	1 Continental R975-42	550 hp.	35.0	31.9	12.5	6,000	Over 100	2

[1] A—Allison; GE—General Electric; P—Pratt & Whitney; W—Wright. [2] With afterburner. [3] Knots.

Peacetime Production Record

Year	Military	Personal	Transport	Total	Year	Military	Personal	Transport	Total
1946	1,669[2]	34,568[1]	433[1]	36,670	1951	(3)	2,279[1]	198[1]	(3)
1947	2,100[2]	15,399[1]	278[1]	17,717	1952	(3)	3,057[1]	452[1]	(3)
1948	(3)	7,039[1]	263[1]	(3)	1953	(3)	3,825[1]	309[1]	(3)
1949	(3)	3,379[1]	166[1]	(3)	1954	(3)	3,098[1]	291[1]	(3)
1950	(3)	3,391[1]	129[1]	(3)					

[1] *Source:* Census Bureau. [2] *Source:* Statistical Control Div. of Air Comptroller, Air Force. [3] Not for publication.

ASTRONOMY AND CALENDAR

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Kinds of Time

Of the three main kinds of time (sidereal, apparent solar, and mean solar), the two kinds used in our calendar pages (local civil and standard time) are both types of mean solar time.

Sidereal time is used mostly in astronomy. It is nearly but not exactly star-time, and is measured by the diurnal rotation of the vernal equinox point in the sky. Sidereal days are shorter than solar days by about $3^m\ 56^s$ of mean time.

Apparent solar time is measured by the apparent diurnal rotation of the sun, and is the hour-angle of the sun $+12^h$. When the sun is at lower transit we have 0^h by apparent time; when it is on the upper meridian the apparent time is 12^h. The sun is not a good timekeeper, its eastward motion along the ecliptic being irregular, so apparent days are of unequal duration.

Mean solar time is the hour-angle of the "mean sun" $+12^h$. The mean sun is an imaginary body moving uniformly along the celestial equator. When the mean sun is on the lower meridian, the mean time is 0^h. The actual sun is sometimes ahead of and sometimes behind the mean sun, and the difference at any moment is the *equation of time*. When the sun is west of the mean sun, we have the "sun fast" situation, and the sun crosses the meridian before the mean sun; when the sun is east of the mean sun, we have the "sun slow" condition, and the sun transits after the mean sun. The equation of time helps in conversion of apparent and mean solar time. No clock runs on apparent time but ordinary clocks keep mean solar time in some form.

Local civil time (L.C.T.) is the mean solar time of a designated meridian, and its day begins with the mean sun at lower transit. This is midnight, the moment of *zero hour* (0^h). Ordinary clocks are not set to local civil time, because this time—at any instant—varies with any change of longitude.

Standard time is the local civil time of a standard meridian, but used over an entire time-zone. In the U. S. the four zones (Eastern, Central, Mountain, and Pacific) are based upon the standard meridians of 75°, 90°, 105°, and 120° respectively. Ordinary clocks run on standard time, a type of mean solar time. In the summer, in certain localities, they run on advanced time (as daylight saving time) but this is only a clock-setting, and is actually standard time. Daylight saving time for a certain zone is the normal standard time of one zone to the east. While popular in certain metropolitan areas, it is not used for scientific observations. Advanced time is 1^h later on the clock-face than the normal standard time of the same zone.

Time zones. A time-zone chart of the entire world shows clearly how the world is divided into 24 time zones according to longitude. In a large proportion of countries, standard time is in use, and commonly the time on the clock-face reads 1 hour later for each zone east of a given zone, and 1 hour earlier for each zone west of a given zone. The zero time-zone of the world runs thru Greenwich, Eng., and the zones are so marked that the standard time at a particular station, added algebraically to the zone-number at the bottom gives the corresponding universal time or Greenwich civil time. For example, 3 A.M., M.S.T. $+ 7^h = 10^h$ U.T. or G.C.T.

Mexico, except for the northern part of Lower California, uses 90th-meridian time entirely. Canada uses the 4 standard-time zones of the U. S., and two others: (1) 60th-meridian or Atlantic standard time, for New Brunswick, Nova Scotia, and Quebec (east of 68° w.), 4^h earlier than Greenwich, and (2) 135th-meridian or Yukon standard time, 9^h earlier than Greenwich.

Newfoundland and the Labrador coast use Newfoundland standard time, 3h 30m earlier than Greenwich. Alaska uses 4 time-zones, those based on the following meridians of west longitude: 120° (Juneau), 135° or Yukon standard time (Yakutat), 150° or Alaska standard time (Fairbanks), and 165° (Nome).

The Date-line. At any moment of time, usually there are parts of two different but contiguous days going on at different places on the earth. The change of date is made at the date-line, an imaginary line that follows essentially the course of the 180° meridian in the Pacific Ocean. At points east of the date-line the calendar day is 1 day earlier than at places to the west of the line. At a point just west of the date-line, let us suppose it is 18h or 6 P.M., L.C.T., on Aug. 1. At the same moment it is 12h at long. 90° e., 6h at long. 0°, and 0h at long. 90° w., all of the same date, Aug. 1. West of long. 90° w., it is not yet 0h (midnight); hence between 90° w. and 180° the date must be July 31. As one crosses the date-line going eastward his watch remains the same but the date changes abruptly to 1 day earlier, so the traveler repeats part of a calendar day. As one crosses the line going westward the date changes abruptly to one day later, causing him to omit a calendar day. (According to actual practice, the change is made at night regardless of the true moment of crossing.)

On Using the Following Calendar Pages

Sun fast and sun slow. This is the *equation of time,* as previously discussed.

Sunrise and sunset. For accurate results, two corrections to the tabular values are necessary: (1) interpolation for latitude, and (2) reduction to standard time. When the observer is at a latitude between two given latitudes, he computes a time for sunrise or sunset that lies between the times shown for the given latitudes. (Our table of longitudes and latitudes is a guide for one's position, but a large atlas may be consulted.) For example, on Aug. 2 the sun sets at 7:02 P.M. at lat. 35° and at 7:13 at lat. 40°, the difference being +11m. An observer in San Francisco at lat. 37°47′ would be about 0.6 the distance between 35° and 40°. (0.6) (+11m) = 6m.6, and therefore at his station sunset occurs at 7:02 + 6½m or 7:08½ P.M. L.C.T. The station (long. 122°26′ w.) is 2°26′ or 2°.4 west of the 120° standard meridian; (2.4) (+4m) = +9m.6; 7:08½ + 9½ = 7:18 P.M., P.S.T. for sunset at San Francisco.

In the sun and moon tables, the data has to be given in LOCAL CIVIL TIME. This is *not* standard time, but has to be reduced to standard time.

To reduce local civil time to standard time, decrease the L.C.T. by 4m for every degree the station is east of the standard meridian, or increase the L.C.T. by 4m for every degree the station is west of the standard meridian.

Moonrise and moonset. For accurate results at any station in the U. S., three corrections are needed: (1) interpolation for latitude, (2) correction for longitudes west of 82½°, and (3) reduction to standard time.

(1) Interpolation for latitude follows the same method as for the sun.

(2) Use of the *a-factor.* The moon tables are exact for the given latitudes and for longitude 75° w. The a-factor adapts them to any longitude in the U. S. For observers in the eastern states and as far west as long. 82½° [Port Huron, Mich., Mansfield, Ohio, Huntington, W. Va., Asheville, N. C., Tampa, Fla.], no a-factor is used. For stations in the 90° zone, between 82½° and 97½°, use the a-factor in the column "90°". The "a-factor, moonrise" is always to be added to the time of moonrise as derived from the main tables, and the "a-factor, moonset" is added to the time of moonset as derived. The boundary at 97½°, between the 90° and the 105° zones, runs through Grafton, N. Dak., Webster, S. Dak., Norfolk, Nebr., Salina, Kans., Oklahoma City, Okla., Fort Worth and Corpus Christi, Tex. Observers in the 105° zone, between 97½° and 112½° long., will use the "105°" a-factor, and those west of 112½° will use the "120°" a-factor, the eastern boundary (112½°) of the 120° zone going through Butte, Mont., Pocatello, Idaho, Panguitch, Utah, and Prescott, Ariz. These zones do *not* correspond to the irregular divisions of the standard-time belts.

(3) Change L.C.T. to standard time.

Ex., find moonrise time on Apr. 25 at Thompsonville, Conn., long. 72°36′ w., lat. 42°0′ n. (a) Moonrise for lat. 40° is 7:47 P.M., for 45°, 8:01. The increase is +14m. The station is about ⅖ or 0.4 the distance between 40° and 45°. (0.4) (+14m) = +5m.6. 7:47 + 5½ = 7:52½ P.M., L.C.T. (b) No a-factor is needed in this case. (c) Reduce to standard time. 75° − 72°36′ = 2°24′ or 2°.4 east of the standard meridian. (2.4) (−4m) = −9m.6; 7:52½ − 9½ = 7:43 P.M., E.S.T., moonrise at Thompsonville, Conn.

Moon's transit. This data indicates the local civil time of the moon crossing the observer's meridian. The time is the same for all latitudes. It is nearly correct for all longitudes in the U. S.; for more exact work use—for every day—a mean a-factor of 2m, 4m, 6m. That is, for the 75° zone, use no correction; for the 90° zone add 2m to the time in the tables; for the 105° zone add 4m; for the 120° zone add 6m. Afterward, reduce the L.C.T. to standard time.

JANUARY 1956

Jan.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sun.	3 6	3	6	9	6 56	5 11	9 27	9 30	7 8	4 59	9 25	9 33	7 22	4 45	9 22	9 38	7 39	4 28	9 19	9 43	2 0	1	3	4
2 Mon.	3 34	3	5	8	6 56	5 11	10 29	10 7	7 8	4 59	10 30	10 8	7 22	4 45	10 31	10 9	7 39	4 29	10 31	10 10	3 51	1	2	4
3 Tue.	4 2	3	5	8	6 56	5 12	11 29	10 42	7 8	5 0	11 33	10 40	7 22	4 46	11 36	10 38	7 39	4 30	11 40	10 36	4 39	1	2	4
4 Wed.	4 30	3	5	8	6 57	5 13	.....	11 16	7 9	5 1	.....	11 12	7 22	4 47	.....	11 7	7 39	4 31	.....	11 1	5 26	1	2	4
5 Thu.	4 58	3	5	8	6 57	5 14	0 27	11 51	7 9	5 2	0 33	11 45	7 22	4 48	0 39	11 37	7 38	4 32	0 47	11 28	6 12	1	3	4
6 Fri.	5 25	3	5	7	6 57	5 14	1 24	12 28	7 9	5 2	1 32	12 19	7 22	4 49	1 41	12 9	7 38	4 33	1 52	11 58	6 58	1	3	4
7 Sat.	5 51	2	5	7	6 57	5 15	2 19	1 8	7 9	5 3	2 30	12 57	7 22	4 50	2 41	12 45	7 38	4 34	2 55	12 30	7 45	2	3	5
8 Sun.	6 18	2	5	7	6 57	5 16	3 14	1 50	7 9	5 4	3 26	1 38	7 22	4 51	3 39	1 24	7 38	4 35	3 55	1 7	8 33	2	4	5
9 Mon.	6 43	2	4	6	6 57	5 17	4 7	2 36	7 9	5 5	4 20	2 23	7 22	4 52	4 34	2 9	7 38	4 36	4 51	1 51	9 22	2	4	6
10 Tue.	7 8	2	4	6	6 57	5 17	4 57	3 25	7 9	5 6	5 10	3 13	7 22	4 53	5 24	2 58	7 38	4 37	5 42	2 41	10 11	2	4	7
11 Wed.	7 33	2	3	5	6 57	5 18	5 43	4 17	7 9	5 7	5 56	4 5	7 22	4 54	6 10	3 52	7 37	4 38	6 26	3 35	10 59	2	5	7
12 Thu.	7 57	2	3	5	6 57	5 19	6 26	5 10	7 9	5 8	6 37	5 0	7 22	4 55	6 50	4 48	7 37	4 39	7 5	4 33	11 47	2	5	7
13 Fri.	8 21	1	3	4	6 57	5 20	7 6	6 4	7 9	5 9	7 15	5 56	7 21	4 56	7 26	5 46	7 37	4 41	7 38	5 34	12 33	2	5	7
14 Sat.	8 44	1	2	4	6 57	5 21	7 42	6 59	7 8	5 10	7 50	6 53	7 21	4 57	7 58	6 45	7 36	4 42	8 7	6 36	1 18	2	5	7
15 Sun.	9 6	1	2	3	6 58	5 22	8 16	7 53	7 8	5 11	8 21	7 49	7 21	4 58	8 27	7 44	7 36	4 43	8 33	7 39	2 2	3	5	7
16 Mon.	9 28	1	2	3	6 57	5 22	8 48	8 48	7 8	5 11	8 51	8 46	7 20	4 59	8 54	8 45	7 35	4 44	8 58	8 42	2 45	3	5	8
17 Tue.	9 48	1	2	3	6 57	5 23	9 20	9 44	7 8	5 12	9 20	9 44	7 20	5 0	9 20	9 46	7 35	4 46	9 21	9 47	3 28	3	5	8
18 Wed.	10 9	1	2	3	6 57	5 24	9 52	10 40	7 7	5 13	9 49	10 44	7 20	5 1	9 47	10 47	7 34	4 47	9 44	10 52	4 13	3	5	8
19 Thu.	10 28	1	3	4	6 56	5 25	10 26	11 39	7 7	5 14	10 21	11 45	7 19	5 2	10 15	11 52	7 33	4 48	10 10	.....	4 59	3	5	8
20 Fri.	10 47	2	3	4	6 56	5 26	11 3	.....	7 7	5 15	10 55	.....	7 19	5 4	10 47	.....	7 33	4 50	10 38	0 0	5 48	3	6	8
21 Sat.	11 5	2	3	5	6 56	5 27	11 44	0 40	7 6	5 16	11 34	0 49	7 18	5 5	11 24	0 58	7 32	4 51	11 11	1 10	6 41	3	6	8
22 Sun.	11 22	2	4	6	6 56	5 28	12 31	1 44	7 6	5 17	12 21	1 54	7 17	5 6	12 7	2 6	7 31	4 52	11 52	2 21	7 38	3	6	9
23 Mon.	11 39	3	5	7	6 55	5 28	1 28	2 48	7 5	5 18	1 14	3 1	7 17	5 7	12 59	3 15	7 30	4 54	12 43	3 32	8 39	3	5	8
24 Tue.	11 54	3	6	9	6 55	5 29	2 30	3 52	7 5	5 19	2 17	4 5	7 16	5 8	2 2	4 20	7 30	4 55	1 44	4 37	9 42	3	5	7
25 Wed.	12 9	3	6	9	6 55	5 30	3 37	4 53	7 4	5 20	3 25	5 5	7 16	5 9	3 12	5 19	7 29	4 56	2 56	5 36	10 44	2	4	7
26 Thu.	12 23	3	6	9	6 54	5 31	4 47	5 47	7 4	5 22	4 37	5 58	7 15	5 11	4 27	6 11	7 28	4 58	4 14	6 25	11 45	2	4	6
27 Fri.	12 36	3	6	9	6 54	5 32	5 57	6 36	7 3	5 23	5 50	6 45	7 14	5 12	5 43	6 54	7 27	4 59	5 33	7 4	.....	2	3	5
28 Sat.	12 49	3	6	9	6 53	5 33	7 5	7 21	7 3	5 24	7 1	7 26	7 13	5 13	6 57	7 32	7 26	5 1	6 51	7 38	0 43	1	3	4
29 Sun.	13 1	3	6	9	6 53	5 34	8 11	8 1	7 2	5 25	8 10	8 3	7 13	5 14	8 9	8 6	7 25	5 2	8 7	8 9	1 37	1	3	4
30 Mon.	13 11	3	6	8	6 52	5 35	9 14	8 37	7 1	5 26	9 15	8 37	7 12	5 15	9 18	8 37	7 24	5 3	9 20	8 36	2 28	1	2	4
31 Tue.	13 21	3	5	8	6 52	5 35	10 14	9 13	7 1	5 27	10 19	9 11	7 11	5 16	10 25	9 7	7 23	5 5	10 30	9 3	3 17	1	2	4

Moon's phases

E.S.T.

	d	h	m
☾	4	5	41
●	12	10	1
☽	20	5	58
○	27	9	40

C.S.T.

	d	h	m
☾	4	4	41
●	12	9	1
☽	20	4	58
○	27	8	40

M.S.T.

	d	h	m
☾	4	3	41
●	12	8	1
☽	20	3	58
○	27	7	40

P.S.T.

	d	h	m
☾	4	2	41
●	12	7	1
☽	20	2	58
○	27	6	40

FEBRUARY 1956

Feb.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Wed.	13 31	3	5	8	6 51	5 36	11 13	9 50	7 0	5 28	11 20	9 44	7 10	5 18	11 29	9 38	7 22	5 6	11 38	9 30	4 5	1	3	4
2 Thu.	13 39	3	5	8	6 51	5 37	.....	10 27	6 59	5 29	.....	10 19	7 9	5 19	.....	10 10	7 21	5 8	.....	9 59	4 52	1	3	4
3 Fri.	13 47	3	5	8	6 50	5 38	0 11	11 6	6 59	5 30	0 20	10 56	7 8	5 20	0 31	10 45	7 19	5 9	0 43	10 31	5 40	2	3	5
4 Sat.	13 54	2	5	7	6 50	5 39	1 7	11 47	6 58	5 31	1 18	11 36	7 7	5 21	1 31	11 23	7 18	5 10	1 45	11 7	6 28	2	3	5
5 Sun.	14 0	2	4	7	6 49	5 40	2 1	12 33	6 57	5 32	2 13	12 20	7 6	5 22	2 27	12 6	7 17	5 12	2 43	11 49	7 17	2	4	6
6 Mon.	14 5	2	4	6	6 48	5 40	2 52	1 20	6 56	5 33	3 4	1 8	7 5	5 24	3 19	12 54	7 16	5 13	3 36	12 36	8 6	2	4	6
7 Tue.	14 9	2	4	5	6 47	5 41	3 39	2 11	6 55	5 34	3 52	1 59	7 4	5 25	4 6	1 45	7 14	5 15	4 24	1 29	8 55	2	5	7
8 Wed.	14 13	2	3	5	6 47	5 42	4 24	3 4	6 54	5 35	4 35	2 53	7 3	5 26	4 49	2 41	7 13	5 16	5 4	2 25	9 43	2	5	7
9 Thu.	14 16	1	3	4	6 46	5 43	5 5	3 58	6 53	5 36	5 14	3 49	7 2	5 27	5 26	3 38	7 12	5 18	5 39	3 26	10 30	2	5	7
10 Fri.	14 18	1	3	4	6 45	5 44	5 42	4 52	6 52	5 37	5 50	4 46	7 1	5 29	5 59	4 37	7 10	5 19	6 10	4 27	11 15	2	5	7
11 Sat.	14 19	1	2	3	6 44	5 45	6 17	5 47	6 52	5 38	6 23	5 43	7 0	5 30	6 30	5 37	7 9	5 20	6 37	5 30	12 0	3	5	8
12 Sun.	14 20	1	2	3	6 44	5 45	6 51	6 43	6 51	5 39	6 54	6 40	6 58	5 31	6 58	6 38	7 8	5 22	7 3	6 34	12 44	3	5	8
13 Mon.	14 19	1	2	3	6 43	5 46	7 23	7 39	6 50	5 40	7 24	7 38	6 57	5 32	7 25	7 39	7 6	5 23	7 27	7 39	1 28	3	5	8
14 Tue.	14 18	1	2	3	6 42	5 47	7 55	8 35	6 49	5 41	7 53	8 38	6 56	5 33	7 52	8 41	7 5	5 25	7 51	8 45	2 12	3	5	8
15 Wed.	14 17	1	2	4	6 41	5 48	8 28	9 33	6 48	5 42	8 25	9 39	6 55	5 34	8 20	9 45	7 3	5 26	8 16	9 51	2 58	3	5	8
16 Thu.	14 14	1	3	4	6 40	5 49	9 5	10 34	6 47	5 43	8 58	10 41	6 53	5 36	8 51	10 50	7 2	5 28	8 43	11 0	3 46	3	5	8
17 Fri.	14 11	2	3	5	6 39	5 49	9 44	11 35	6 46	5 43	9 36	11 45	6 52	5 37	9 25	11 56	7 0	5 29	9 13	.....	4 37	3	6	8
18 Sat.	14 7	2	4	6	6 39	5 50	10 28	.....	6 44	5 45	10 18	.....	6 51	5 38	10 6	.....	6 59	5 30	9 51	0 9	5 31	3	5	8
19 Sun.	14 2	2	4	7	6 38	5 51	11 20	0 38	6 43	5 45	11 6	0 49	6 50	5 39	10 53	1 3	6 57	5 32	10 37	1 18	6 29	3	5	8
20 Mon.	13 57	3	5	8	6 37	5 52	12 17	1 40	6 42	5 46	12 4	1 52	6 48	5 40	11 49	2 6	6 56	5 33	11 32	2 24	7 28	3	5	7
21 Tue.	13 51	3	6	9	6 36	5 52	1 20	2 40	6 41	5 47	1 7	2 53	6 47	5 41	12 53	3 6	6 54	5 35	12 38	3 23	8 29	2	5	7
22 Wed.	13 44	3	6	9	6 35	5 53	2 26	3 35	6 40	5 48	2 16	3 46	6 45	5 43	2 3	3 59	6 52	5 36	1 50	4 14	9 28	2	4	6
23 Thu.	13 37	3	6	9	6 34	5 54	3 34	4 26	6 39	5 49	3 26	4 34	6 44	5 44	3 16	4 45	6 51	5 37	3 5	4 57	10 26	2	3	5
24 Fri.	13 28	3	6	9	6 33	5 55	4 42	5 11	6 38	5 50	4 37	5 17	6 43	5 45	4 30	5 25	6 49	5 39	4 23	5 34	11 21	2	3	5
25 Sat.	13 20	3	6	9	6 32	5 55	5 49	5 52	6 36	5 51	5 46	5 56	6 41	5 46	5 43	6 1	6 47	5 40	5 40	6 5	.....	1	3	4
26 Sun.	13 10	3	6	9	6 31	5 56	6 53	6 31	6 35	5 52	6 54	6 32	6 40	5 47	6 54	6 33	6 46	5 42	6 54	6 35	0 13	1	3	4
27 Mon.	13 1	3	6	8	6 30	5 57	7 56	7 8	6 34	5 53	7 59	7 6	6 38	5 48	8 3	7 4	6 44	5 43	8 7	7 2	1 4	1	3	4
28 Tue.	12 50	3	5	8	6 29	5 58	8 57	7 45	6 33	5 54	9 3	7 40	6 37	5 49	9 10	7 35	6 42	5 44	9 17	7 30	1 53	1	3	4
29 Wed.	12 39	3	5	8	6 28	5 58	9 57	8 22	6 31	5 55	10 5	8 15	6 35	5 50	10 14	8 7	6 41	5 46	10 26	7 58	2 42	1	3	4

Moon's phases

E.S.T.

	d	h	m
☾	3	11	8
●	11	4	38
☽	19	4	21
○	25	8	41

C.S.T.

	d	h	m
☾	3	10	8
●	11	3	38
☽	19	3	21
○	25	7	41

M.S.T.

	d	h	m
☾	3	9	8
●	11	2	38
☽	19	2	21
○	25	6	41

P.S.T.

	h	m
☾	3	8
●	11	1 38
☽	19	1 21
○	25	5 41

MARCH 1956

Mar.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Thu.	12 28	3	5	7	6 26	5 59	10 55	9 2	6 30	5 56	11 5	8 52	6 34	5 52	11 16	8 42	6 39	5 47	11 31	8 30	3 31	2	3	5
2 Fri.	12 16	2	5	7	6 25	6 0	11 51	9 43	6 29	5 56	.....	9 32	6 33	5 53	.....	9 20	6 37	5 48	.....	9 5	4 20	2	3	5
3 Sat.	12 3	2	5	7	6 24	6 0	.....	10 27	6 28	5 57	0 2	10 16	6 31	5 54	0 16	10 2	6 35	5 50	0 32	9 45	5 10	2	4	6
4 Sun.	11 50	2	4	6	6 23	6 1	0 44	11 14	6 26	5 58	0 56	11 2	6 30	5 55	1 11	10 48	6 34	5 51	1 28	10 31	5 59	2	4	6
5 Mon.	11 37	2	4	6	6 22	6 2	1 34	12 5	6 25	5 59	1 46	11 52	6 28	5 56	2 0	11 38	6 32	5 52	2 17	11 21	6 49	2	4	7
6 Tue.	11 23	2	3	5	6 21	6 2	2 19	12 56	6 24	6 0	2 31	12 45	6 26	5 57	2 44	12 32	6 30	5 54	3 0	12 17	7 37	2	5	7
7 Wed.	11 9	2	3	4	6 20	6 3	3 1	1 50	6 22	6 1	3 12	1 40	6 25	5 58	3 23	1 29	6 28	5 55	3 38	1 15	8 24	2	5	7
8 Thu.	10 55	1	3	4	6 19	6 4	3 40	2 44	6 21	6 2	3 49	2 36	6 23	5 59	3 59	2 27	6 26	5 56	4 16	2 16	9 10	2	5	7
9 Fri.	10 40	1	2	4	6 18	6 4	4 16	3 39	6 20	6 2	4 23	3 33	6 22	6 0	4 30	3 26	6 25	5 58	4 39	3 18	9 55	3	5	7
10 Sat.	10 24	1	2	3	6 16	6 5	4 50	4 34	6 18	6 3	4 54	4 31	6 20	6 1	5 0	4 27	6 23	5 59	5 5	4 22	10 39	3	5	8
11 Sun.	10 9	1	2	3	6 15	6 6	5 23	5 30	6 17	6 4	5 25	5 29	6 19	6 2	5 28	5 28	6 21	6 0	5 30	5 27	11 24	3	5	8
12 Mon.	9 53	1	2	3	6 14	6 6	5 56	6 27	6 16	6 5	5 55	6 29	6 17	6 3	5 55	6 31	6 19	6 2	5 55	6 33	12 9	3	5	8
13 Tue.	9 37	1	2	4	6 13	6 7	6 30	7 26	6 14	6 6	6 27	7 30	6 16	6 4	6 23	7 36	6 17	6 3	6 20	7 41	12 55	3	5	8
14 Wed.	9 20	1	3	4	6 12	6 8	7 6	8 27	6 13	6 7	7 0	8 33	6 14	6 5	6 54	8 41	6 15	6 4	6 47	8 50	1 43	3	6	8
15 Thu.	9 4	2	3	5	6 10	6 8	7 45	9 28	6 11	6 7	7 37	9 38	6 12	6 6	7 28	9 48	6 13	6 6	7 18	10 1	2 34	3	6	8
16 Fri.	8 47	2	4	5	6 9	6 9	8 28	10 31	6 10	6 8	8 18	10 42	6 11	6 7	8 6	10 55	6 12	6 7	7 54	11 10	3 27	3	5	8
17 Sat.	8 29	2	4	6	6 8	6 9	9 17	11 33	6 9	6 9	9 6	11 46	6 9	6 8	8 52	.....	6 10	6 8	8 36	.....	4 24	3	5	8
18 Sun.	8 12	2	5	7	6 7	6 10	10 12	.....	6 7	6 10	10 0	.....	6 8	6 10	9 46	0 0	6 8	6 9	9 28	0 17	5 22	2	5	7
19 Mon.	7 54	3	5	8	6 6	6 11	11 12	0 33	6 6	6 11	11 0	0 46	6 6	6 11	10 47	1 0	6 6	6 11	10 30	1 17	6 22	2	5	7
20 Tue.	7 37	3	6	9	6 4	6 11	12 16	1 29	6 4	6 12	12 5	1 40	6 4	6 12	11 52	1 53	6 4	6 12	11 37	2 10	7 20	2	4	6
21 Wed.	7 19	3	6	9	6 3	6 12	1 21	2 19	6 3	6 12	1 12	2 29	6 3	6 13	1 2	2 40	6 2	6 13	12 49	2 53	8 16	2	3	5
22 Thu.	7 1	3	6	9	6 2	6 13	2 27	3 5	6 2	6 13	2 20	3 12	6 1	6 14	2 13	3 21	6 0	6 15	2 4	3 31	9 10	2	3	5
23 Fri.	6 42	3	6	9	6 1	6 13	3 32	3 46	6 0	6 14	3 28	3 52	5 59	6 15	3 24	3 57	5 58	6 16	3 18	4 4	10 2	1	3	4
24 Sat.	6 24	3	6	9	6 0	6 14	4 35	4 26	5 59	6 15	4 35	4 28	5 58	6 16	4 33	4 30	5 57	6 17	4 32	4 34	10 53	1	3	4
25 Sun.	6 6	3	6	8	5 58	6 14	5 38	5 2	5 57	6 15	5 40	5 2	5 56	6 17	5 42	5 1	5 55	6 18	5 45	5 2	11 42	1	3	4
26 Mon.	5 48	3	5	8	5 57	6 15	6 40	5 39	5 56	6 16	6 44	5 36	5 55	6 18	6 50	5 32	5 53	6 20	6 56	5 29	.....	1	3	4
27 Tue.	5 29	3	5	8	5 56	6 16	7 40	6 16	5 55	6 17	7 48	6 10	5 53	6 19	7 56	6 4	5 51	6 21	8 5	5 57	0 31	1	3	4
28 Wed.	5 11	3	5	8	5 55	6 16	8 40	6 55	5 53	6 18	8 49	6 47	5 51	6 20	9 0	6 38	5 49	6 22	9 12	6 28	1 20	2	3	4
29 Thu.	4 53	2	5	7	5 53	6 17	9 38	7 36	5 52	6 19	9 49	7 27	5 50	6 21	10 1	7 15	5 47	6 23	10 17	7 2	2 10	2	3	5
30 Fri.	4 34	2	4	7	5 52	6 17	10 33	8 21	5 50	6 20	10 45	8 9	5 48	6 22	10 59	7 56	5 45	6 25	11 16	7 41	3 0	2	4	5
31 Sat.	4 16	2	4	6	5 51	6 18	11 24	9 7	5 49	6 20	11 37	8 55	5 46	6 23	11 51	8 41	5 43	6 26	.....	8 24	3 50	2	4	6

Moon's phases

E.S.T.

	d	h	m
☾	4	6	53
●	12	8	36
☽	19	12	13
○	26	8	11

C.S.T.

	d	h	m
☾	4	5	53
●	12	7	36
☽	19	11	13
○	26	7	11

M.S.T.

	d	h	m
☾	4	4	53
●	12	6	36
☽	19	10	13
○	26	6	11

P.S.T.

	d	h	m
☾	4	3	53
●	12	5	36
☽	19	9	13
○	26	5	11

APRIL 1956

Apr.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sun.	3 58	2	4	6	5 50	6 19	.....	9 57	5 48	6 21	.....	9 44	5 45	6 24	.....	9 30	5 42	6 27	0 8	9 13	4 40	2	4	6
2 Mon.	3 40	2	4	5	5 49	6 19	0 12	10 48	5 46	6 22	0 24	10 36	5 43	6 25	0 38	10 23	5 40	6 28	0 54	10 7	5 29	2	5	7
3 Tue.	3 22	2	3	5	5 47	6 20	0 56	11 41	5 45	6 23	1 7	11 30	5 42	6 26	1 20	11 19	5 38	6 30	1 34	11 4	6 17	2	5	7
4 Wed.	3 5	1	3	4	5 46	6 20	1 36	12 34	5 43	6 23	1 45	12 26	5 40	6 27	1 56	12 16	5 36	6 31	2 8	12 4	7 3	2	5	7
5 Thu.	2 47	1	3	4	5 45	6 21	2 13	1 28	5 42	6 24	2 20	1 22	5 38	6 28	2 28	1 14	5 34	6 32	2 39	1 5	7 48	2	5	7
6 Fri.	2 30	1	2	3	5 44	6 22	2 47	2 23	5 41	6 25	2 52	2 19	5 37	6 29	2 59	2 14	5 32	6 34	3 6	2 8	8 33	3	5	8
7 Sat.	2 13	1	2	3	5 43	6 22	3 21	3 19	5 39	6 26	3 23	3 16	5 35	6 30	3 27	3 15	5 30	6 35	3 31	3 12	9 17	3	5	8
8 Sun.	1 56	1	2	3	5 42	6 23	3 54	4 15	5 38	6 27	3 54	4 16	5 34	6 31	3 55	4 16	5 29	6 36	3 56	4 17	10 1	3	5	8
9 Mon.	1 39	1	2	4	5 40	6 23	4 27	5 13	5 37	6 27	4 26	5 17	5 32	6 32	4 23	5 21	5 27	6 37	4 21	5 24	10 48	3	5	8
10 Tue.	1 23	1	3	4	5 39	6 24	5 3	6 14	5 35	6 28	4 58	6 20	5 31	6 33	4 54	6 26	5 25	6 39	4 48	6 34	11 35	3	6	8
11 Wed.	1 7	2	3	5	5 38	6 25	5 42	7 17	5 34	6 29	5 35	7 25	5 29	6 34	5 27	7 34	5 23	6 40	5 18	7 46	12 26	3	6	9
12 Thu.	0 51	2	4	5	5 37	6 25	6 25	8 21	5 33	6 30	6 14	8 32	5 27	6 35	6 4	8 43	5 21	6 41	5 52	8 57	1 20	3	6	8
13 Fri.	0 36	2	4	6	5 36	6 26	7 14	9 25	5 31	6 31	7 2	9 36	5 26	6 36	6 49	9 50	5 20	6 42	6 34	10 7	2 17	3	5	8
14 Sat.	0 21	2	5	7	5 35	6 26	8 7	10 27	5 30	6 31	7 55	10 39	5 24	6 37	7 41	10 54	5 18	6 44	7 24	11 11	3 16	2	5	7
15 Sun.	0 6	3	5	8	5 34	6 27	9 6	11 25	5 29	6 32	8 54	11 36	5 23	6 38	8 40	11 49	5 16	6 45	8 25	.....	4 16	2	4	6
	FAST																							
16 Mon.	0 8	3	6	9	5 33	6 28	10 10	.....	5 27	6 33	9 59	.....	5 21	6 39	9 45	.....	5 14	6 46	9 31	0 5	5 15	2	4	6
17 Tue.	0 23	3	6	9	5 31	6 28	11 15	0 17	5 26	6 34	11 5	0 27	5 20	6 40	10 54	0 38	5 13	6 47	10 41	0 52	6 11	2	4	5
18 Wed.	0 36	3	6	9	5 30	6 29	12 19	1 3	5 25	6 35	12 12	1 12	5 18	6 41	12 4	1 21	5 11	6 49	11 54	1 31	7 6	2	3	5
19 Thu.	0 50	3	6	8	5 29	6 29	1 23	1 45	5 24	6 35	1 19	1 51	5 17	6 42	1 13	1 58	5 9	6 50	1 7	2 5	7 57	1	3	4
20 Fri.	1 3	3	6	8	5 28	6 30	2 26	2 24	5 22	6 36	2 24	2 27	5 16	6 43	2 21	2 31	5 8	6 51	2 19	2 36	8 46	1	3	4
21 Sat.	1 15	3	5	8	5 27	6 31	3 27	3 0	5 21	6 37	3 28	3 2	5 14	6 44	3 29	3 2	5 6	6 52	3 30	3 3	9 35	1	2	4
22 Sun.	1 27	3	5	8	5 26	6 31	4 27	3 36	5 20	6 38	4 31	3 35	5 13	6 45	4 35	3 32	5 4	6 54	4 39	3 30	10 23	1	3	4
23 Mon.	1 39	3	5	8	5 25	6 32	5 27	4 13	5 19	6 39	5 34	4 8	5 11	6 46	5 41	4 4	5 2	6 55	5 48	3 57	11 11	1	3	4
24 Tue.	1 50	3	5	8	5 24	6 33	6 27	4 50	5 17	6 39	6 35	4 44	5 10	6 47	6 45	4 36	5 1	6 56	6 56	4 27	.....	1	3	4
25 Wed.	2 1	3	5	7	5 23	6 33	7 25	5 31	5 16	6 40	7 35	5 22	5 8	6 48	7 47	5 11	4 59	6 58	8 1	4 59	0 1	2	3	5
26 Thu.	2 12	2	5	7	5 22	6 34	8 21	6 13	5 15	6 41	8 33	6 3	5 7	6 49	8 47	5 51	4 58	6 59	9 2	5 36	0 51	2	3	5
27 Fri.	2 22	2	4	6	5 21	6 34	9 15	6 59	5 14	6 42	9 27	6 48	5 6	6 50	9 41	6 34	4 56	7 0	9 59	6 18	1 41	2	4	6
28 Sat.	2 31	2	4	6	5 20	6 35	10 5	7 48	5 13	6 43	10 17	7 36	5 4	6 51	10 30	7 22	4 54	7 1	10 47	7 6	2 31	2	4	6
29 Sun.	2 40	2	3	5	5 19	6 36	10 56	8 39	5 12	6 43	11 2	8 27	5 3	6 52	11 14	8 13	4 53	7 2	11 30	7 58	3 21	2	5	7
30 Mon.	2 48	1	3	4	5 18	6 36	11 32	9 32	5 11	6 44	11 42	9 20	5 2	6 53	11 53	9 9	4 51	7 4	.....	8 54	4 10	2	5	7

Moon's phases

E.S.T.

	d	h	m
☾	3	3	6
●	10	9	39
☽	17	6	28
○	24	8	40

C.S.T.

	d	h	m
☾	3	2	6
●	10	8	39
☽	17	5	28
○	24	7	40

M.S.T.

	d	h	m
☾	3	1	6
●	10	7	39
☽	17	4	28
○	24	6	40

P.S.T.

	d	h	m
☾	3	0	6
●	10	6	39
☽	17	3	28
○	24	5	40

MAY 1956

May	Sun fast	a-factor, moonrise 90°	105°	120°	LOCAL CIVIL TIME Latitude 30° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 35° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 40° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 45° n. Sun-rise	Sun-set	Moon-rise	Moon-set	Moon's upper transit	a-factor, moonset 90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Tue.	2 56	1	3	4	5 18	6 37	.....	10 25	5 10	6 45	.....	10 15	5 1	6 54	.....	10 5	4 50	7 5	0 7	9 52	4 57	2	5	7
2 Wed.	3 3	1	3	4	5 17	6 38	0 9	11 18	5 9	6 46	0 18	11 11	4 59	6 55	0 27	11 2	4 48	7 6	0 38	10 53	5 42	2	5	7
3 Thu.	3 9	1	2	4	5 16	6 38	0 45	12 12	5 8	6 47	0 51	12 6	4 58	6 56	0 58	12 0	4 47	7 7	1 6	11 54	6 26	2	5	7
4 Fri.	3 16	1	2	3	5 15	6 39	1 18	1 6	5 7	6 48	1 22	1 3	4 57	6 57	1 27	1 0	4 45	7 9	1 32	12 56	7 9	3	5	8
5 Sat.	3 21	1	2	3	5 14	6 40	1 51	2 2	5 6	6 48	1 52	2 1	4 56	6 58	1 54	2 1	4 44	7 10	1 56	2 0	7 53	3	5	8
6 Sun.	3 26	1	2	3	5 13	6 40	2 23	2 58	5 5	6 49	2 23	3 1	4 54	6 59	2 22	3 3	4 43	7 11	2 21	3 5	8 38	3	5	8
7 Mon.	3 30	1	3	4	5 12	6 41	2 58	3 58	5 4	6 50	2 55	4 2	4 53	7 0	2 51	4 8	4 41	7 12	2 47	4 14	9 24	3	5	8
8 Tue.	3 34	1	3	4	5 12	6 42	3 35	4 59	5 3	6 51	3 29	5 7	4 52	7 1	3 22	5 14	4 40	7 14	3 14	5 24	10 14	3	6	9
9 Wed.	3 37	2	3	5	5 11	6 42	4 15	6 4	5 2	6 52	4 7	6 13	4 51	7 2	3 58	6 24	4 39	7 15	3 47	6 36	11 7	3	6	9
10 Thu.	3 40	2	4	6	5 10	6 43	5 3	7 10	5 1	6 52	4 51	7 21	4 50	7 3	4 40	7 33	4 37	7 16	4 27	7 48	12 4	3	6	8
11 Fri.	3 42	2	5	7	5 9	6 43	5 56	8 14	5 0	6 53	5 44	8 26	4 49	7 4	5 30	8 41	4 36	7 17	5 14	8 57	1 4	3	5	8
12 Sat.	3 43	3	5	8	5 9	6 44	6 55	9 15	4 59	6 54	6 43	9 28	4 48	7 5	6 29	9 41	4 35	7 18	6 13	9 58	2 6	2	5	7
13 Sun.	3 44	3	6	9	5 8	6 45	7 59	10 12	4 58	6 55	7 47	10 22	4 47	7 6	7 34	10 34	4 34	7 19	7 19	10 49	3 7	2	4	6
14 Mon.	3 44	3	6	9	5 7	6 45	9 6	11 1	4 57	6 56	8 55	11 10	4 46	7 7	8 44	11 20	4 32	7 21	8 30	11 32	4 6	2	3	5
15 Tue.	3 44	3	6	9	5 7	6 46	10 12	11 45	4 57	6 56	10 4	11 52	4 45	7 8	9 55	11 59	4 31	7 22	9 44	.....	5 2	1	3	4
16 Wed.	3 43	3	6	9	5 6	6 47	11 17	.....	4 56	6 57	11 12	.....	4 44	7 9	11 5	.....	4 30	7 23	10 58	0 8	5 54	1	3	4
17 Thu.	3 42	3	6	8	5 6	6 47	12 20	0 25	4 55	6 58	12 17	0 29	4 43	7 10	12 14	0 34	4 29	7 24	12 11	0 39	6 44	1	3	4
18 Fri.	3 40	3	5	8	5 5	6 48	1 21	1 2	4 54	6 59	1 21	1 4	4 42	7 11	1 21	1 5	4 28	7 25	1 21	1 7	7 32	1	2	4
19 Sat.	3 38	3	5	8	5 4	6 49	2 21	1 38	4 54	6 59	2 24	1 37	4 42	7 12	2 27	1 35	4 27	7 26	2 30	1 33	8 20	1	2	4
20 Sun.	3 35	3	5	8	5 4	6 49	3 20	2 13	4 53	7 0	3 25	2 10	4 41	7 13	3 31	2 5	4 26	7 27	3 38	2 0	9 7	1	3	4
21 Mon.	3 31	3	5	8	5 3	6 50	4 19	2 50	4 52	7 1	4 26	2 43	4 40	7 13	4 35	2 37	4 25	7 28	4 45	2 28	9 55	1	3	4
22 Tue.	3 27	3	5	8	5 3	6 51	5 17	3 28	4 52	7 2	5 26	3 20	4 39	7 14	5 37	3 10	4 24	7 29	5 50	2 59	10 44	2	3	4
23 Wed.	3 23	2	5	7	5 2	6 51	6 13	4 9	4 51	7 2	6 24	4 0	4 38	7 15	6 37	3 48	4 23	7 30	6 52	3 34	11 34	2	3	5
24 Thu.	3 18	2	4	7	5 2	6 52	7 7	4 54	4 51	7 3	7 19	4 43	4 38	7 16	7 33	4 29	4 22	7 31	7 49	4 14	.....	2	4	6
25 Fri.	3 12	2	4	6	5 2	6 52	7 58	5 41	4 50	7 4	8 10	5 29	4 37	7 17	8 25	5 15	4 21	7 32	8 42	4 59	0 25	2	4	6
26 Sat.	3 6	2	3	5	5 1	6 53	8 45	6 32	4 50	7 4	8 57	6 20	4 36	7 18	9 11	6 6	4 21	7 33	9 26	5 49	1 15	2	4	7
27 Sun.	3 0	2	3	5	5 1	6 54	9 28	7 24	4 49	7 5	9 39	7 12	4 36	7 19	9 51	7 0	4 20	7 34	10 5	6 44	2 4	2	5	7
28 Mon.	2 53	1	3	4	5 0	6 54	10 7	8 17	4 49	7 6	10 16	8 7	4 35	7 19	10 27	7 56	4 19	7 35	10 38	7 42	2 51	2	5	7
29 Tue.	2 45	1	2	4	5 0	6 55	10 43	9 10	4 48	7 6	10 51	9 2	4 35	7 20	10 58	8 53	4 18	7 36	11 8	8 42	3 37	2	5	7
30 Wed.	2 37	1	2	3	5 0	6 55	11 17	10 3	4 48	7 7	11 22	9 57	4 34	7 21	11 28	9 50	4 18	7 37	11 34	9 43	4 21	2	5	7
31 Thu.	2 29	1	2	3	5 0	6 56	11 50	10 57	4 48	7 8	11 52	10 53	4 34	7 22	11 55	10 48	4 17	7 38	11 58	10 44	5 4	2	5	7

Moon's phases

E.S.T.

	d	h	m
☾	2	9	55
●	10	8	4
☽	17	0	15
○	24	10	26

C.S.T.

	d	h	m
☾	2	8	55
●	10	7	4
☽	16	11	15
○	24	9	26

M.S.T.

	d	h	m
☾	2	7	55
●	10	6	4
☽	16	10	15
○	24	8	26

P.S.T.

	d	h	m
☾	2	6	55
●	10	5	4
☽	16	9	15
○	24	7	26

JUNE 1956

June	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Fri.	2 20	1	2	3	4 59	6 56	.....	11 50	4 47	7 8	.....	11 49	4 33	7 22	.....	11 47	4 17	7 39	.....	11 45	5 47	3	5	7
2 Sat.	2 11	1	2	3	4 59	6 57	0 22	12 46	4 47	7 9	0 21	12 46	4 33	7 23	0 22	12 48	4 16	7 40	0 22	12 49	6 30	3	5	8
3 Sun.	2 1	1	2	4	4 59	6 57	1 54	1 42	4 47	7 10	0 52	1 46	4 32	7 24	0 49	1 49	4 16	7 41	0 46	1 54	7 15	3	5	8
4 Mon.	1 51	1	3	4	4 59	6 58	1 29	2 42	4 46	7 10	1 24	2 47	4 32	7 24	1 20	2 54	4 15	7 41	1 13	3 2	8 2	3	6	8
5 Tue.	1 41	2	3	5	4 59	6 58	2 8	3 44	4 46	7 11	2 0	3 52	4 32	7 25	1 52	4 1	4 15	7 42	1 42	4 13	8 52	3	6	9
6 Wed.	1 30	2	4	5	4 58	6 59	2 50	4 44	4 46	7 11	2 41	4 59	4 31	7 26	2 30	5 11	4 14	7 43	2 18	5 25	9 47	3	6	9
7 Thu.	1 19	2	4	7	4 58	6 59	3 41	5 55	4 46	7 12	3 28	6 6	4 31	7 26	3 16	6 20	4 14	7 44	3 2	6 36	10 46	3	5	8
8 Fri.	1 8	3	5	8	4 58	7 0	4 38	6 59	4 46	7 12	4 26	7 12	4 31	7 27	4 12	7 25	4 14	7 44	3 55	7 41	11 48	3	5	7
9 Sat.	0 56	3	6	8	4 58	7 0	5 41	7 58	4 45	7 13	5 29	8 11	4 31	7 27	5 15	8 24	4 13	7 45	4 59	8 39	12 51	2	4	6
10 Sun.	0 44	3	6	9	4 58	7 0	6 48	8 53	4 45	7 13	6 37	9 3	4 31	7 28	6 24	9 14	4 13	7 46	6 10	9 27	1 53	2	4	6
11 Mon.	0 32	3	6	9	4 58	7 1	7 57	9 41	4 45	7 14	7 48	9 49	4 30	7 28	7 38	9 57	4 13	7 46	7 26	10 6	2 52	2	3	5
12 Tue.	0 20	3	6	9	4 58	7 1	9 5	10 23	4 45	7 14	8 58	10 29	4 30	7 29	8 51	10 34	4 13	7 47	8 43	10 40	3 48	1	3	4
13 Wed.	0 - 8 SLOW	3	6	9	4 58	7 2	10 11	11 3	4 45	7 14	10 7	11 5	4 30	7 29	10 3	11 7	4 13	7 47	9 58	11 10	4 40	1	3	4
14 Thu.	0 5	3	6	8	4 58	7 2	11 14	11 39	4 45	7 15	11 13	11 39	4 30	7 30	11 12	11 38	4 13	7 48	11 11	11 38	5 30	1	2	4
15 Fri.	0 18	3	5	8	4 58	7 2	12 15	.....	4 45	7 15	12 17	.....	4 30	7 30	12 19	.....	4 12	7 48	12 21	.....	6 18	1	2	4
16 Sat.	0 30	3	5	8	4 58	7 2	1 15	0 15	4 45	7 16	1 20	0 12	4 30	7 31	1 24	0 8	4 12	7 48	1 30	0 5	7 6	1	3	4
17 Sun.	0 43	3	5	8	4 59	7 3	2 13	0 52	4 45	7 16	2 20	0 46	4 30	7 31	2 28	0 40	4 12	7 49	2 38	0 32	7 53	1	3	4
18 Mon.	0 56	3	5	8	4 59	7 3	3 11	1 29	4 46	7 16	3 20	1 21	4 30	7 31	3 30	1 12	4 13	7 49	3 42	1 2	8 42	1	3	4
19 Tue.	1 9	2	5	7	4 59	7 3	4 7	2 9	4 46	7 17	4 18	1 59	4 31	7 32	4 30	1 48	4 13	7 50	4 44	1 35	9 31	2	3	5
20 Wed.	1 22	2	4	7	4 59	7 4	5 2	2 51	4 46	7 17	5 14	2 40	4 31	7 32	5 27	2 28	4 13	7 50	5 43	2 13	10 20	2	4	5
21 Thu.	1 35	2	4	6	4 59	7 4	5 54	3 37	4 46	7 17	6 6	3 26	4 31	7 32	6 20	3 12	4 13	7 50	6 37	2 56	11 10	2	4	6
22 Fri.	1 48	2	4	5	4 59	7 4	6 42	4 27	4 46	7 17	6 54	4 15	4 31	7 32	7 8	4 1	4 13	7 50	7 24	3 44	11 59	2	4	6
23 Sat.	2 1	2	3	5	5 0	7 4	7 27	5 18	4 47	7 17	7 37	5 6	4 31	7 32	7 50	4 53	4 13	7 50	8 4	4 37	.....	2	4	7
24 Sun.	2 14	1	3	4	5 0	7 5	8 7	6 11	4 47	7 18	8 16	6 0	4 32	7 33	8 27	5 48	4 14	7 51	8 40	5 34	0 47	2	5	7
25 Mon.	2 26	1	2	4	5 0	7 5	8 44	7 4	4 47	7 18	8 52	6 55	4 32	7 33	9 0	6 45	4 14	7 51	9 11	6 33	1 34	2	5	7
26 Tue.	2 39	1	2	3	5 0	7 5	9 18	7 57	4 47	7 18	9 24	7 50	4 32	7 33	9 30	7 43	4 14	7 51	9 38	7 33	2 19	2	5	7
27 Wed.	2 51	1	2	3	5 1	7 5	9 51	8 50	4 48	7 18	9 54	8 45	4 33	7 33	9 58	8 40	4 15	7 51	10 3	8 34	3 2	2	5	7
28 Thu.	3 4	1	2	3	5 1	7 5	10 22	9 43	4 48	7 18	10 23	9 41	4 33	7 33	10 25	9 38	4 15	7 51	10 26	9 35	3 44	2	5	7
29 Fri.	3 16	1	2	3	5 1	7 5	10 54	10 37	4 48	7 18	10 52	10 37	4 34	7 33	10 52	10 37	4 16	7 51	10 50	10 37	4 27	2	5	7
30 Sat.	3 28	1	2	4	5 2	7 5	11 27	11 32	4 49	7 18	11 24	11 34	4 34	7 33	11 19	11 37	4 16	7 50	11 15	11 40	5 10	3	5	8

Moon's phases

E.S.T.

	d	h	m
☾	1	2	13
●	8	4	29
☽	15	6	56
○	23	1	13

C.S.T.

	d	h	m
☾	1	1	13
●	8	3	29
☽	15	5	56
○	23	0	13

M.S.T.

	d	h	m
☾	1	12	13
●	8	2	29
☽	15	4	56
○	22	11	13

P.S.T.

	d	h	m
☾	1	11	13
●	8	1	29
☽	15	3	56
○	22	10	13

July	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sun.	3 40	1	3	4	5 2	7 5	.....	12 28	4 49	7 18	11 56	12 33	4 34	7 33	11 50	12 38	4 17	7 50	11 42	12 45	5 54	3	5	8
2 Mon.	3 51	2	3	4	5 2	7 5	0 3	1 28	4 50	7 18	.....	1 35	4 35	7 33	.....	1 43	4 17	7 50	.....	1 53	6 42	3	5	8
3 Tue.	4 2	2	3	5	5 3	7 5	0 41	2 29	4 50	7 18	0 33	2 39	4 35	7 32	0 24	2 49	4 18	7 50	0 14	3 3	7 33	3	6	8
4 Wed.	4 13	2	4	6	5 3	7 5	1 27	3 33	4 51	7 17	1 16	3 45	4 36	7 32	1 5	3 57	4 18	7 50	0 51	4 12	8 28	3	6	8
5 Thu.	4 24	2	5	7	5 4	7 5	2 20	4 37	4 51	7 17	2 7	4 49	4 37	7 32	1 54	5 3	4 19	7 49	1 38	5 20	9 27	3	5	8
6 Fri.	4 34	3	5	8	5 4	7 5	3 19	5 39	4 51	7 17	3 8	5 53	4 37	7 32	2 53	6 6	4 20	7 49	2 36	6 22	10 30	2	5	7
7 Sat.	4 44	3	6	9	5 5	7 4	4 25	6 37	4 52	7 17	4 14	6 49	4 38	7 31	4 0	7 1	4 20	7 49	3 44	7 16	11 33	2	4	6
8 Sun.	4 54	3	6	9	5 5	7 4	5 35	7 30	4 53	7 17	5 24	7 38	4 38	7 31	5 13	7 49	4 21	7 48	4 59	8 0	12 35	2	3	5
9 Mon.	5 3	3	6	9	5 6	7 4	6 45	8 17	4 53	7 16	6 37	8 23	4 39	7 31	6 28	8 30	4 22	7 48	6 17	8 38	1 34	2	3	5
10 Tue.	5 12	3	6	9	5 6	7 4	7 54	8 59	4 54	7 16	7 49	9 2	4 40	7 30	7 43	9 6	4 23	7 47	7 36	9 10	2 30	1	3	4
11 Wed.	5 20	3	6	9	5 7	7 4	9 1	9 38	4 54	7 16	8 58	9 38	4 40	7 30	8 56	9 39	4 24	7 47	8 53	9 40	3 22	1	3	4
12 Thu.	5 28	3	6	8	5 7	7 3	10 5	10 15	4 55	7 16	10 6	10 13	4 41	7 29	10 6	10 10	4 24	7 46	10 7	10 8	4 13	1	3	4
13 Fri.	5 36	3	5	8	5 8	7 3	11 6	10 52	4 56	7 15	11 10	10 47	4 42	7 29	11 14	10 42	4 25	7 45	11 18	10 36	5 2	1	3	4
14 Sat.	5 43	3	5	8	5 8	7 3	12 6	11 29	4 56	7 15	12 13	11 23	4 42	7 28	12 19	11 14	4 26	7 45	12 27	11 5	5 50	1	3	4
15 Sun.	5 49	3	5	8	5 9	7 3	1 5	.....	4 57	7 14	1 13	.....	4 43	7 28	1 23	11 50	4 27	7 44	1 34	11 37	6 39	2	3	5
16 Mon.	5 55	2	5	7	5 9	7 2	2 3	0 9	4 57	7 14	2 13	0 0	4 44	7 27	2 24	.....	4 28	7 43	2 38	.....	7 28	2	3	5
17 Tue.	6 0	2	5	7	5 10	7 2	2 58	0 51	4 58	7 13	3 9	0 40	4 45	7 27	3 22	0 28	4 29	7 43	3 38	0 13	8 17	2	3	5
18 Wed.	6 5	2	4	6	5 10	7 1	3 50	1 36	4 59	7 13	4 2	1 24	4 46	7 26	4 16	1 11	4 30	7 42	4 33	0 54	9 7	2	4	6
19 Thu.	6 10	2	4	6	5 11	7 1	4 40	2 23	4 59	7 12	4 52	2 11	4 46	7 25	5 5	1 57	4 31	7 41	5 22	1 41	9 56	2	4	6
20 Fri.	6 13	2	3	5	5 11	7 0	5 25	3 14	5 0	7 12	5 37	3 2	4 47	7 25	5 49	2 48	4 32	7 40	6 5	2 32	10 45	2	4	7
21 Sat.	6 17	1	3	4	5 12	7 0	6 7	4 6	5 1	7 11	6 17	3 55	4 48	7 24	6 28	3 43	4 33	7 39	6 42	3 28	11 32	2	5	7
22 Sun.	6 19	1	3	4	5 13	6 59	6 44	4 59	5 2	7 11	6 53	4 49	4 49	7 23	7 3	4 39	4 34	7 38	7 14	4 26	.....	2	5	7
23 Mon.	6 21	1	2	4	5 13	6 59	7 20	5 52	5 2	7 10	7 26	5 45	4 50	7 22	7 34	5 36	4 35	7 37	7 42	5 26	0 17	2	5	7
24 Tue.	6 23	1	2	3	5 14	6 58	7 54	6 46	5 3	7 9	7 57	6 40	4 51	7 22	8 3	6 34	4 36	7 36	8 8	6 27	1 1	2	5	7
25 Wed.	6 24	1	2	3	5 14	6 58	8 25	7 39	5 4	7 9	8 27	7 36	4 51	7 21	8 29	7 32	4 37	7 35	8 32	7 28	1 44	2	5	7
26 Thu.	6 24	1	2	3	5 15	6 57	8 57	8 32	5 4	7 8	8 56	8 32	4 52	7 20	8 56	8 30	4 38	7 34	8 56	8 29	2 26	2	5	7
27 Fri.	6 24	1	2	4	5 15	6 57	9 29	9 25	5 5	7 7	9 26	9 28	4 53	7 19	9 23	9 29	4 39	7 33	9 19	9 31	3 8	3	5	7
28 Sat.	6 23	1	3	4	5 16	6 56	10 3	10 21	5 6	7 6	9 58	10 25	4 54	7 18	9 52	10 30	4 40	7 32	9 46	10 35	3 52	3	5	8
29 Sun.	6 21	2	3	4	5 17	6 55	10 40	11 18	5 7	7 6	10 33	11 25	4 55	7 17	10 24	11 31	4 41	7 31	10 15	11 40	4 37	3	5	8
30 Mon.	6 19	2	3	5	5 17	6 55	11 21	12 17	5 7	7 5	11 11	12 26	4 56	7 16	11 1	12 36	4 42	7 30	10 48	12 47	5 25	3	5	8
31 Tue.	6 17	2	4	6	5 18	6 54	.....	1 18	5 8	7 4	11 58	1 28	4 57	7 15	11 44	1 41	4 43	7 28	11 31	1 54	6 17	3	5	8

Moon's phases

E.S.T.

	d	h	m
☾	1	3	40
●	7	11	37
☽	14	3	46
○	22	4	29
☾	30	2	31

C.S.T.

	d	h	m
☾	1	2	40
●	7	10	37
☽	14	2	46
○	22	3	29
☾	30	1	31

M.S.T.

	d	h	m
☾	1	1	40
●	7	9	37
☽	14	1	46
○	22	2	29
☾	30	12	31

P.S.T.

	d	h	m
☾	1	0	40
●	7	8	37
☽	14	12	46
○	22	1	29
☾	30	11	31

AUGUST 1956

Aug.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Wed.	6 13	2	5	7	5 18	6 53	0 9	2 20	5 9	7 3	.....	2 32	4 58	7 14	.....	2 45	4 45	7 27	.....	3 1	7 13	3	5	8
2 Thu.	6 10	2	5	7	5 19	6 53	1 2	3 21	5 9	7 2	0 50	3 34	4 59	7 13	0 36	3 47	4 46	7 26	0 20	4 5	8 12	2	5	7
3 Fri.	6 5	3	6	8	5 20	6 52	2 4	4 21	5 10	7 1	1 52	4 32	5 0	7 12	1 38	4 46	4 47	7 24	1 21	5 1	9 13	2	4	7
4 Sat.	6 0	3	6	9	5 20	6 51	3 10	5 15	5 11	7 0	3 0	5 25	5 0	7 11	2 47	5 36	4 48	7 23	2 32	5 49	10 15	2	4	6
5 Sun.	5 55	3	6	9	5 21	6 50	4 20	6 5	5 12	6 59	4 11	6 12	5 1	7 10	4 1	6 21	4 49	7 22	3 48	6 31	11 15	2	3	5
6 Mon.	5 48	3	6	9	5 22	6 49	5 30	6 50	5 12	6 58	5 23	6 54	5 2	7 8	5 16	7 0	4 50	7 20	5 7	7 7	12 13	2	3	4
7 Tue.	5 42	3	6	9	5 22	6 49	6 39	7 31	5 13	6 57	6 36	7 33	5 3	7 7	6 31	7 36	4 51	7 19	6 26	7 38	1 9	1	3	4
8 Wed.	5 34	3	6	9	5 23	6 48	7 46	8 10	5 14	6 56	7 45	8 9	5 4	7 6	7 45	8 9	4 53	7 18	7 44	8 8	2 1	1	3	4
9 Thu.	5 26	3	6	9	5 23	6 47	8 51	8 49	5 15	6 55	8 53	8 45	5 5	7 5	8 55	8 42	4 54	7 16	8 58	8 37	2 53	1	3	4
10 Fri.	5 18	3	6	8	5 24	6 46	9 54	9 27	5 16	6 54	9 58	9 22	5 6	7 4	10 4	9 14	4 55	7 15	10 11	9 7	3 43	1	3	4
11 Sat.	5 9	3	5	8	5 25	6 45	10 55	10 7	5 16	6 53	11 2	9 59	5 7	7 2	11 11	9 50	4 56	7 13	11 20	9 39	4 33	2	3	5
12 Sun.	4 59	3	5	7	5 25	6 44	11 54	10 49	5 17	6 52	12 3	10 39	5 8	7 1	12 14	10 28	4 57	7 12	12 27	10 14	5 23	2	3	5
13 Mon.	4 49	2	5	7	5 26	6 43	12 51	11 34	5 18	6 51	1 2	11 22	5 9	7 0	1 14	11 9	4 59	7 10	1 30	10 54	6 13	2	4	6
14 Tue.	4 38	2	4	6	5 26	6 42	1 45	.....	5 19	6 50	1 57	.....	5 10	6 59	2 11	11 55	5 0	7 9	2 27	11 38	7 3	2	4	6
15 Wed.	4 27	2	4	6	5 27	6 41	2 36	0 20	5 19	6 49	2 48	0 8	5 11	6 57	3 2	.....	5 1	7 7	3 18	.....	7 53	2	4	6
16 Thu.	4 15	2	3	5	5 28	6 40	3 22	1 10	5 20	6 48	3 34	0 58	5 12	6 56	3 48	0 44	5 2	7 5	4 3	0 28	8 41	2	4	7
17 Fri.	4 2	2	3	5	5 28	6 39	4 5	2 2	5 21	6 46	4 16	1 50	5 13	6 54	4 28	1 37	5 3	7 4	4 42	1 22	9 29	2	5	7
18 Sat.	3 49	1	3	4	5 29	6 38	4 45	2 54	5 22	6 45	4 54	2 44	5 14	6 53	5 4	2 33	5 5	7 2	5 16	2 19	10 15	2	5	7
19 Sun.	3 36	1	2	4	5 29	6 37	5 21	3 47	5 22	6 44	5 29	3 39	5 15	6 52	5 36	3 30	5 6	7 0	5 16	3 19	10 59	2	5	7
20 Mon.	3 22	1	2	3	5 30	6 36	5 56	4 41	5 23	6 43	6 0	4 35	5 16	6 50	6 6	4 27	5 7	6 59	6 12	4 20	11 42	2	5	7
21 Tue.	3 7	1	2	3	5 30	6 35	6 28	5 34	5 24	6 42	6 30	5 30	5 17	6 49	6 34	5 26	5 8	6 57	6 37	5 21	.....	2	5	7
22 Wed.	2 52	1	2	3	5 31	6 34	7 0	6 27	5 25	6 40	7 0	6 26	5 18	6 47	7 1	6 24	5 9	6 56	7 1	6 22	0 25	2	5	7
23 Thu.	2 37	1	2	3	5 32	6 33	7 32	7 21	5 25	6 39	7 30	7 23	5 19	6 46	7 28	7 23	5 10	6 54	7 25	7 24	1 8	2	5	7
24 Fri.	2 21	1	3	4	5 32	6 32	8 5	8 17	5 26	6 38	8 1	8 19	5 19	6 44	7 56	8 23	5 12	6 52	7 51	8 27	1 51	3	5	8
25 Sat.	2 5	1	3	4	5 33	6 31	8 41	9 13	5 27	6 37	8 35	9 18	5 20	6 43	8 28	9 25	5 13	6 50	8 19	9 32	2 36	3	5	8
26 Sun.	1 48	2	3	5	5 33	6 30	9 21	10 10	5 28	6 35	9 12	10 19	5 21	6 41	9 2	10 27	5 14	6 49	8 51	10 38	3 23	3	5	8
27 Mon.	1 31	2	4	6	5 34	6 29	10 5	11 10	5 28	6 34	9 55	11 20	5 22	6 40	9 43	11 30	5 15	6 47	9 29	11 44	4 13	3	5	8
28 Tue.	1 14	2	4	7	5 34	6 28	10 55	12 10	5 29	6 33	10 43	12 22	5 23	6 38	10 30	12 34	5 16	6 45	10 15	12 49	5 6	3	5	8
29 Wed.	0 56	3	5	8	5 35	6 26	11 52	1 10	5 30	6 31	11 40	1 22	5 24	6 37	11 26	1 35	5 18	6 43	11 9	1 52	6 2	2	5	7
30 Thu.	0 38	3	6	8	5 36	6 25	.....	2 8	5 31	6 30	.....	2 19	5 25	6 35	.....	2 34	5 19	6 42	.....	2 50	7 0	2	4	7
31 Fri.	0 19	3	6	8	5 36	6 24	0 54	3 3	5 31	6 29	0 42	3 13	5 26	6 34	0 29	3 26	5 20	6 40	0 14	3 39	8 0	2	4	6

Moon's phases

E.S.T.

	d	h	m
●	6	6	25
☽	13	3	45
○	21	7	38
☾	28	11	13

C.S.T.

	d	h	m
●	6	5	25
☽	13	2	45
○	21	6	38
☾	28	10	13

M.S.T.

	d	h	m
●	6	4	25
☽	13	1	45
○	21	5	38
☾	28	9	13

P.S.T.

	d	h	m
●	6	3	25
☽	13	0	45
○	21	4	38
☾	28	8	13

SEPTEMBER 1956

Sept.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sat.	−0 1	3	6	9	5 37	6 23	1 59	3 54	5 32	6 27	1 50	4 2	5 27	6 32	1 38	4 12	5 21	6 38	1 25	4 23	8 59	2	3	5
2 Sun.	+0 18	3	6	9	5 37	6 22	3 7	4 39	5 33	6 26	3 0	4 46	5 28	6 31	2 51	4 53	5 22	6 36	2 41	5 1	9 57	2	3	5
3 Mon.	0 37	3	6	9	5 38	6 20	4 16	5 22	5 34	6 24	4 11	5 26	5 29	6 29	4 5	5 30	5 24	6 34	3 58	5 34	10 53	1	3	4
4 Tue.	0 57	3	6	9	5 38	6 19	5 24	6 2	5 34	6 23	5 22	6 3	5 30	6 27	5 19	6 4	5 25	6 32	5 16	6 5	11 47	1	3	4
5 Wed.	1 17	3	6	9	5 39	6 18	6 30	6 42	5 35	6 22	6 31	6 40	5 31	6 26	6 32	6 38	5 26	6 30	6 33	6 35	12 39	1	3	4
6 Thu.	1 37	3	6	9	5 39	6 17	7 35	7 21	5 36	6 20	7 39	7 17	5 32	6 24	7 43	7 11	5 27	6 29	7 47	7 5	1 31	1	3	4
7 Fri.	1 57	3	6	8	5 40	6 16	8 39	8 2	5 37	6 19	8 45	7 54	5 33	6 23	8 52	7 47	5 28	6 27	9 0	7 37	2 22	2	3	5
8 Sat.	2 17	3	5	8	5 40	6 14	9 40	8 43	5 37	6 17	9 49	8 35	5 34	6 21	9 58	8 24	5 30	6 25	10 10	8 12	3 14	2	3	5
9 Sun.	2 38	3	5	7	5 41	6 13	10 40	9 28	5 38	6 16	10 49	9 17	5 35	6 19	11 1	9 5	5 31	6 23	11 15	8 51	4 5	2	4	5
10 Mon.	2 58	2	5	7	5 42	6 12	11 36	10 15	5 39	6 15	11 47	10 3	5 36	6 18	12 0	9 50	5 32	6 21	12 17	9 35	4 56	2	4	6
11 Tue.	3 19	2	4	6	5 42	6 11	12 29	11 5	5 39	6 13	12 40	10 53	5 37	6 16	12 54	10 39	5 33	6 19	1 10	10 23	5 47	2	4	6
12 Wed.	3 40	2	4	5	5 43	6 9	1 18	11 56	5 40	6 12	1 29	11 44	5 38	6 14	1 42	11 31	5 34	6 17	1 58	11 16	6 36	2	4	7
13 Thu.	4 1	2	3	5	5 43	6 8	2 3	.....	5 41	6 10	2 13	.....	5 38	6 13	2 25	.....	5 36	6 15	2 40	.....	7 24	2	5	7
14 Fri.	4 23	1	3	4	5 44	6 7	2 43	0 48	5 42	6 9	2 57	0 37	5 39	6 11	3 3	0 26	5 37	6 14	3 16	0 12	8 10	2	5	7
15 Sat.	4 44	1	3	4	5 44	6 6	3 20	1 41	5 42	6 7	3 28	1 32	5 40	6 9	3 36	1 22	5 38	6 12	3 47	1 10	8 55	2	5	7
16 Sun.	5 5	1	2	4	5 45	6 5	3 55	2 34	5 43	6 6	4 1	2 27	5 41	6 8	4 7	2 19	5 39	6 10	4 15	2 10	9 39	2	5	7
17 Mon.	5 27	1	2	3	5 45	6 3	4 29	3 27	5 44	6 5	4 32	3 23	5 42	6 6	4 36	3 17	5 40	6 8	4 41	3 11	10 22	2	5	7
18 Tue.	5 48	1	2	3	5 46	6 2	5 1	4 21	5 45	6 3	5 2	4 19	5 43	6 4	5 4	4 16	5 42	6 6	5 5	4 13	11 5	2	5	7
19 Wed.	6 9	1	2	4	5 46	6 1	5 34	5 15	5 45	6 2	5 32	5 15	5 44	6 3	5 31	5 15	5 43	6 4	5 30	5 15	11 49	3	5	8
20 Thu.	6 31	1	2	4	5 47	6 0	6 7	6 11	5 46	6 0	6 4	6 12	5 45	6 1	6 0	6 16	5 44	6 2	5 56	6 18	.....	3	5	8
21 Fri.	6 52	1	3	4	5 47	5 58	6 43	7 7	5 47	5 59	6 37	7 11	5 46	6 0	6 31	7 17	5 45	6 0	6 23	7 23	0 34	3	5	8
22 Sat.	7 13	2	3	5	5 48	5 57	7 22	8 5	5 48	5 57	7 14	8 12	5 47	5 58	7 5	8 19	5 46	5 58	6 55	8 29	1 21	3	5	8
23 Sun.	7 34	2	4	5	5 49	5 56	8 5	9 4	5 48	5 56	7 54	9 13	5 48	5 56	7 43	9 23	5 48	5 56	7 31	9 36	2 10	3	5	8
24 Mon.	7 55	2	4	6	5 49	5 55	8 53	10 4	5 49	5 55	8 42	10 15	5 49	5 55	8 29	10 27	5 49	5 55	8 13	10 41	3 3	3	5	8
25 Tue.	8 16	2	5	7	5 50	5 53	9 47	11 4	5 50	5 53	9 35	11 15	5 50	5 53	9 22	11 29	5 50	5 53	9 5	11 45	3 58	2	5	7
26 Wed.	8 37	3	5	8	5 50	5 52	10 46	12 2	5 50	5 52	10 34	12 13	5 51	5 51	10 21	12 27	5 51	5 51	10 5	12 43	4 54	2	4	7
27 Thu.	8 57	3	6	9	5 51	5 51	11 49	12 57	5 51	5 50	11 38	1 7	5 52	5 50	11 26	1 20	5 52	5 49	11 12	1 34	5 52	2	4	6
28 Fri.	9 17	3	6	9	5 51	5 50	.....	1 47	5 52	5 49	.....	1 56	5 53	5 48	.....	2 7	5 54	5 47	.....	2 18	6 50	2	3	5
29 Sat.	9 37	3	6	9	5 52	5 48	0 54	2 33	5 53	5 47	0 45	2 40	5 54	5 46	0 36	2 48	5 55	5 45	0 24	2 57	7 46	2	3	5
30 Sun.	9 57	3	6	9	5 53	5 47	2 0	3 16	5 54	5 46	1 53	3 20	5 55	5 45	1 46	3 25	5 56	5 43	1 38	3 31	8 41	1	3	4

Moon's phases

E.S.T.

	d	h	m
●	4	1	57
☽	11	7	13
○	19	10	19
☾	27	6	25

C.S.T.

	d	h	m
●	4	12	57
☽	11	6	13
○	19	9	19
☾	27	5	25

M.S.T.

	d	h	m
●	4	11	57
☽	11	5	13
○	19	8	19
☾	27	4	25

P.S.T.

	d	h	m
●	4	10	57
☽	11	4	13
○	19	7	19
☾	27	3	25

OCTOBER 1956

Oct.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Mon.	10 16	3	6	9	5 53	5 46	3 6	3 56	5 54	5 44	3 2	3 58	5 56	5 43	2 58	4 0	5 57	5 41	2 54	4 2	9 34	1	3	4
2 Tue.	10 35	3	6	9	5 54	5 45	4 11	4 35	5 55	5 43	4 10	4 34	5 57	5 41	4 9	4 34	5 59	5 39	4 9	4 32	10 26	1	3	4
3 Wed.	10 54	3	6	9	5 54	5 44	5 15	5 14	5 56	5 42	5 18	5 11	5 58	5 40	5 20	5 7	6 0	5 38	5 23	5 2	11 17	1	3	4
4 Thu.	11 12	3	6	9	5 55	5 42	6 19	5 54	5 57	5 40	6 24	5 48	5 59	5 38	6 29	5 41	6 1	5 36	6 36	5 34	12 9	2	3	4
5 Fri.	11 30	3	5	8	5 55	5 41	7 22	6 35	5 57	5 39	7 29	6 28	6 0	5 37	7 38	6 18	6 2	5 34	7 47	6 7	1 1	2	3	5
6 Sat.	11 48	3	5	8	5 56	5 40	8 23	7 20	5 58	5 38	8 33	7 9	6 1	5 35	8 43	6 58	6 4	5 32	8 56	6 45	1 53	2	4	5
7 Sun.	12 5	2	5	7	5 57	5 39	9 23	8 6	5 59	5 36	9 33	7 55	6 2	5 33	9 46	7 43	6 5	5 30	10 1	7 28	2 45	2	4	6
8 Mon.	12 22	2	4	7	5 57	5 38	10 18	8 56	6 0	5 35	10 30	8 45	6 3	5 32	10 44	8 31	6 6	5 28	11 0	8 15	3 37	2	4	6
9 Tue.	12 39	2	4	6	5 58	5 37	11 9	9 47	6 1	5 34	11 21	9 36	6 4	5 30	11 35	9 22	6 7	5 27	11 52	9 6	4 28	2	4	7
10 Wed.	12 55	2	3	5	5 58	5 35	11 56	10 40	6 1	5 32	12 7	10 29	6 5	5 29	12 20	10 17	6 9	5 25	12 35	10 2	5 17	2	5	7
11 Thu.	13 11	2	3	5	5 59	5 34	12 39	11 33	6 2	5 31	12 49	11 23	6 6	5 27	1 0	11 13	6 10	5 23	1 13	11 0	6 4	2	5	7
12 Fri.	13 26	1	3	4	6 0	5 33	1 17	.....	6 3	5 30	1 26	.....	6 7	5 26	1 36	.....	6 11	5 21	1 46	11 59	6 50	2	5	7
13 Sat.	13 40	1	2	4	6 0	5 32	1 53	0 26	6 4	5 28	2 0	0 18	6 8	5 24	2 7	0 10	6 13	5 19	2 16	.....	7 34	2	5	7
14 Sun.	13 55	1	2	3	6 1	5 31	2 27	1 19	6 5	5 27	2 31	1 13	6 9	5 23	2 37	1 7	6 14	5 18	2 42	1 0	8 17	2	5	7
15 Mon.	14 8	1	2	3	6 2	5 30	3 0	2 12	6 6	5 26	3 2	2 9	6 10	5 21	3 5	2 5	6 15	5 16	3 7	2 1	9 0	2	5	7
16 Tue.	14 21	1	2	3	6 2	5 29	3 32	3 5	6 6	5 24	3 32	3 5	6 11	5 20	3 32	3 3	6 16	5 14	3 32	3 2	9 43	3	5	7
17 Wed.	14 34	1	2	4	6 3	5 27	4 5	4 1	6 7	5 23	4 4	4 2	6 12	5 18	4 0	4 4	6 18	5 12	3 57	4 5	10 28	3	5	8
18 Thu.	14 46	1	3	4	6 4	5 26	4 41	4 57	6 8	5 22	4 36	5 0	6 13	5 17	4 31	5 5	6 19	5 11	4 24	5 10	11 15	3	5	8
19 Fri.	14 57	2	3	5	6 4	5 25	5 20	5 55	6 9	5 21	5 12	6 1	6 14	5 15	5 5	6 8	6 20	5 9	4 55	6 16	.....	3	5	8
20 Sat.	15 8	2	4	5	6 5	5 24	6 2	6 55	6 10	5 19	5 53	7 3	6 15	5 14	5 43	7 13	6 22	5 7	5 30	7 24	0 4	3	5	8
21 Sun.	15 18	2	4	6	6 6	5 23	6 50	7 56	6 11	5 18	6 38	8 6	6 16	5 12	6 26	8 18	6 23	5 6	6 12	8 32	0 57	3	5	8
22 Mon.	15 27	2	5	7	6 6	5 22	7 43	8 57	6 12	5 17	7 31	9 9	6 18	5 11	7 18	9 22	6 24	5 4	7 2	9 38	1 52	3	5	8
23 Tue.	15 36	3	5	8	6 7	5 21	8 41	9 57	6 12	5 16	8 29	10 9	6 19	5 10	8 16	10 22	6 26	5 2	8 0	10 38	2 49	2	5	7
24 Wed.	15 44	3	6	8	6 8	5 20	9 42	10 53	6 13	5 15	9 32	11 4	6 20	5 8	9 20	11 16	6 27	5 1	9 5	11 32	3 48	2	4	6
25 Thu.	15 52	3	6	9	6 8	5 19	10 47	11 44	6 14	5 14	10 38	11 54	6 21	5 7	10 27	12 5	6 28	4 59	10 15	12 18	4 45	2	4	5
26 Fri.	15 58	3	6	9	6 9	5 18	11 51	12 31	6 15	5 12	11 44	12 39	6 22	5 6	11 36	12 47	6 30	4 58	11 27	12 57	5 41	2	3	5
27 Sat.	16 4	3	6	9	6 10	5 18	.....	1 14	6 16	5 11	.....	1 19	6 23	5 4	.....	1 25	6 31	4 56	.....	1 32	6 35	1	3	4
28 Sun.	16 9	3	6	9	6 11	5 17	0 55	1 54	6 17	5 10	0 51	1 56	6 24	5 3	0 46	2 0	6 32	4 55	0 40	2 3	7 28	1	3	4
29 Mon.	16 13	3	6	9	6 11	5 16	1 59	2 32	6 18	5 9	1 57	2 32	6 25	5 2	1 55	2 33	6 34	4 53	1 53	2 33	8 18	1	3	4
30 Tue.	16 17	3	6	8	6 12	5 15	3 2	3 10	6 19	5 8	3 3	3 7	6 26	5 1	3 4	3 5	6 35	4 52	3 5	3 2	9 9	1	3	4
31 Wed.	16 19	3	6	8	6 13	5 14	4 4	3 48	6 20	5 7	4 8	3 44	6 27	4 59	4 12	3 38	6 37	4 50	4 17	3 32	9 59	1	3	4

Moon's phases

E.S.T.

	d	h	m
●	3	11	24
☽	11	1	44
○	19	12	24
☾	26	1	2

C.S.T.

	d	h	m
●	3	10	24
☽	11	12	44
○	19	11	24
☾	26	12	2

M.S.T.

	d	h	m
●	3	9	24
☽	11	11	44
○	19	10	24
☾	26	11	2

P.S.T.

	d	h	m
●	3	8	24
☽	11	10	44
○	19	9	24
☾	26	10	2

NOVEMBER 1956

Nov.	Sun fast	a factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Thu.	16 21	3	5	8	6 14	5 13	5 7	4 29	6 21	5 6	5 12	4 21	6 29	4 58	5 20	4 13	6 38	4 49	5 28	4 4	10 50	2	3	5
2 Fri.	16 22	3	5	8	6 14	5 13	6 8	5 11	6 22	5 5	6 16	5 2	6 30	4 57	6 26	4 52	6 39	4 47	6 37	4 39	11 41	2	3	5
3 Sat.	16 23	3	5	8	6 15	5 12	7 8	5 57	6 23	5 4	7 17	5 47	6 31	4 56	7 30	5 35	6 41	4 46	7 44	5 20	12 34	2	4	6
4 Sun.	16 22	2	5	7	6 16	5 11	8 5	6 46	6 23	5 3	8 16	6 34	6 32	4 55	8 30	6 21	6 42	4 45	8 45	6 5	1 26	2	4	6
5 Mon.	16 21	2	4	6	6 17	5 10	8 59	7 37	6 24	5 2	9 10	7 25	6 33	4 54	9 25	7 12	6 43	4 43	9 40	6 56	2 18	2	4	7
6 Tue.	16 19	2	4	5	6 18	5 10	9 49	8 30	6 25	5 2	9 59	8 18	6 34	4 53	10 13	8 6	6 45	4 42	10 29	7 51	3 8	2	5	7
7 Wed.	16 17	2	3	5	6 18	5 9	10 34	9 23	6 26	5 1	10 43	9 13	6 36	4 52	10 55	9 2	6 46	4 41	11 9	8 48	3 57	2	5	7
8 Thu.	16 12	1	3	4	6 19	5 8	11 12	10 16	6 27	5 0	11 22	10 7	6 37	4 51	11 33	9 59	6 48	4 39	11 45	9 47	4 43	2	5	7
9 Fri.	16 7	1	2	4	6 20	5 8	11 50	11 9	6 28	4 59	11 58	11 2	6 38	4 50	12 6	10 55	6 49	4 38	12 16	10 46	5 28	2	5	7
10 Sat.	16 2	1	2	3	6 21	5 7	12 25	.....	6 29	4 58	12 30	11 57	6 39	4 49	12 36	11 53	6 50	4 37	12 42	11 47	6 11	2	5	7
11 Sun.	15 56	1	2	3	6 22	5 6	12 58	0 2	6 30	4 58	1 0	.....	6 40	4 48	1 4	.....	6 52	4 36	1 8	.....	6 53	2	5	7
12 Mon.	15 48	1	2	3	6 22	5 6	1 30	0 54	6 31	4 57	1 30	0 53	6 41	4 47	1 32	0 50	6 53	4 35	1 33	0 48	7 36	2	5	7
13 Tue.	15 41	1	2	4	6 23	5 5	2 2	1 48	6 32	4 56	2 1	1 49	6 42	4 46	1 59	1 48	6 54	4 34	1 57	1 49	8 20	3	5	7
14 Wed.	15 32	1	3	4	6 24	5 5	2 36	2 43	6 33	4 55	2 33	2 46	6 44	4 45	2 28	2 49	6 56	4 33	2 24	2 53	9 5	3	5	8
15 Thu.	15 22	2	3	4	6 25	5 4	3 13	3 40	6 34	4 55	3 8	3 46	6 45	4 44	3 0	3 51	6 57	4 32	2 53	3 58	9 54	3	5	8
16 Fri.	15 12	2	3	5	6 26	5 4	3 54	4 40	6 35	4 54	3 45	4 47	6 46	4 43	3 36	4 56	6 59	4 31	3 26	5 5	10 45	3	5	8
17 Sat.	15 0	2	4	6	6 27	5 3	4 41	5 41	6 36	4 54	4 30	5 51	6 47	4 43	4 18	6 1	7 0	4 30	4 5	6 13	11 40	3	6	8
18 Sun.	14 48	2	5	7	6 27	5 3	5 33	6 44	6 37	4 53	5 22	6 55	6 48	4 42	5 9	7 7	7 1	4 29	4 52	7 22	.....	3	5	8
19 Mon.	14 35	2	5	8	6 28	5 2	6 31	7 45	6 38	4 53	6 19	7 57	6 49	4 41	6 6	8 10	7 3	4 28	5 50	8 27	0 38	3	5	7
20 Tue.	14 22	3	6	8	6 29	5 2	7 33	8 45	6 39	4 52	7 22	8 57	6 51	4 41	7 9	9 10	7 4	4 27	6 54	9 26	1 38	2	4	7
21 Wed.	14 7	3	6	9	6 30	5 2	8 38	9 39	6 40	4 52	8 28	9 50	6 52	4 40	8 18	10 2	7 5	4 26	8 4	10 15	2 38	2	4	6
22 Thu.	13 52	3	6	9	6 31	5 1	9 44	10 29	6 41	4 51	9 36	10 37	6 53	4 39	9 28	10 47	7 7	4 25	9 17	10 58	3 36	2	3	5
23 Fri.	13 35	3	6	9	6 32	5 1	10 49	11 14	6 42	4 51	10 44	11 19	6 54	4 39	10 38	11 26	7 8	4 25	10 31	11 35	4 32	2	3	4
24 Sat.	13 18	3	6	8	6 32	5 1	11 52	11 54	6 43	4 50	11 50	11 58	6 55	4 38	11 47	12 2	7 9	4 24	11 44	12 7	5 25	1	3	4
25 Sun.	13 1	3	6	8	6 33	5 0	.....	12 33	6 44	4 50	.....	12 34	6 56	4 38	.....	12 35	7 10	4 23	.....	12 36	6 16	1	3	4
26 Mon.	12 42	3	6	8	6 34	5 0	0 55	1 10	6 45	4 50	0 55	1 8	6 57	4 37	0 55	1 7	7 12	4 23	0 56	1 5	7 6	1	3	4
27 Tue.	12 23	3	6	8	6 35	5 0	1 56	1 47	6 46	4 49	1 59	1 43	6 58	4 37	2 2	1 39	7 13	4 22	2 6	1 33	7 54	1	3	4
28 Wed.	12 3	3	5	8	6 36	5 0	2 57	2 26	6 47	4 49	3 2	2 20	6 59	4 37	3 9	2 12	7 14	4 22	3 15	2 4	8 44	2	3	4
29 Thu.	11 42	3	5	8	6 36	5 0	3 57	3 7	6 48	4 49	4 5	2 59	7 0	4 36	4 13	2 49	7 15	4 21	4 24	2 38	9 34	2	3	5
30 Fri.	11 20	3	5	8	6 37	5 0	4 56	3 51	6 48	4 49	5 6	3 40	7 1	4 36	5 17	3 29	7 17	4 21	5 30	3 16	10 25	2	4	5

Moon's phases

E.S.T.

	d	h	m
●	2	11	43
☽	10	10	9
○	18	1	44
☾	24	8	12

C.S.T.

	d	h	m
●	2	10	43
☽	10	9	9
○	18	0	44
☾	24	7	12

M.S.T.

	d	h	m
●	2	9	43
☽	10	8	9
○	17	11	44
☾	24	6	12

P.S.T.

	d	h	m
●	2	8	43
☽	10	7	9
○	17	10	44
☾	25	5	12

DECEMBER 1956

Dec.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sat.	10 58	2	5	7	6 38	5 0	5 54	4 37	6 49	4 48	6 5	4 26	7 2	4 36	6 18	4 14	7 18	4 20	6 33	3 58	11 17	2	4	6
2 Sun.	10 35	2	4	7	6 39	5 0	6 49	5 28	6 50	4 48	7 1	5 16	7 3	4 35	7 15	5 3	7 19	4 20	7 30	4 47	12 9	2	4	6
3 Mon.	10 12	2	4	6	6 40	5 0	7 40	6 20	6 51	4 48	7 52	6 8	7 4	4 35	8 6	5 55	7 20	4 20	8 22	5 40	1 0	2	5	7
4 Tue.	9 43	2	3	5	6 41	5 0	8 27	7 13	6 52	4 48	8 38	7 2	7 5	4 35	8 51	6 51	7 21	4 19	9 5	6 36	1 49	2	5	7
5 Wed.	9 23	1	3	4	6 41	5 0	9 10	8 7	6 53	4 48	9 20	7 57	7 6	4 35	9 30	7 48	7 22	4 19	9 43	7 35	2 37	2	5	7
6 Thu.	8 58	1	3	4	6 42	5 0	9 48	9 0	6 54	4 48	9 56	8 52	7 7	4 35	10 5	8 45	7 23	4 19	10 16	8 34	3 22	2	5	7
7 Fri.	8 32	1	2	4	6 43	5 0	10 24	9 53	6 55	4 48	10 29	9 47	7 8	4 35	10 36	9 42	7 24	4 19	10 44	9 34	4 6	2	5	7
8 Sat.	8 6	1	2	3	6 44	5 0	10 57	10 45	6 55	4 48	11 0	10 41	7 9	4 35	11 5	10 39	7 25	4 18	11 10	10 34	4 48	2	5	7
9 Sun.	7 40	1	2	3	6 44	5 0	11 29	11 37	6 56	4 48	11 30	11 36	7 10	4 35	11 33	11 36	7 26	4 18	11 35	11 35	5 30	2	5	7
10 Mon.	7 13	1	2	3	6 45	5 1	12 1	.....	6 57	4 49	12 0	.....	7 11	4 35	12 0	.....	7 27	4 18	11 59	.....	6 12	2	5	7
11 Tue.	6 45	1	2	4	6 46	5 1	12 33	0 30	6 58	4 49	12 30	0 32	7 12	4 35	12 27	0 34	7 28	4 18	12 23	0 36	6 56	2	5	7
12 Wed.	6 17	1	3	4	6 46	5 1	1 8	1 26	6 58	4 49	1 2	1 29	7 12	4 35	12 57	1 34	7 29	4 19	12 50	1 39	7 42	3	5	8
13 Thu.	5 49	2	3	5	6 47	5 1	1 46	2 22	6 59	4 49	1 38	2 29	7 13	4 35	1 30	2 35	7 30	4 19	1 20	2 44	8 31	3	5	8
14 Fri.	5 21	2	4	5	6 48	5 2	2 28	3 22	7 0	4 50	1 19	3 30	7 14	4 35	2 8	3 40	7 31	4 19	1 56	3 51	9 24	3	5	8
15 Sat.	4 52	2	4	6	6 48	5 2	3 16	4 24	7 1	4 50	3 6	4 34	7 15	4 36	2 54	4 46	7 31	4 19	2 39	4 59	10 21	3	5	8
16 Sun.	4 23	3	5	7	6 49	5 2	4 13	5 27	7 1	4 50	4 0	5 38	7 15	4 36	3 47	5 51	7 32	4 19	3 31	6 7	11 20	3	5	8
17 Mon.	3 54	3	6	8	6 50	5 3	5 15	6 28	7 2	4 50	5 3	6 40	7 16	4 36	4 50	6 54	7 33	4 20	4 34	7 10	.....	2	5	7
18 Tue.	3 25	3	6	9	6 50	5 3	6 21	7 27	7 2	4 51	6 11	7 38	7 17	4 37	5 59	7 51	7 33	4 20	5 45	8 5	0 22	2	4	6
19 Wed.	2 55	3	6	9	6 51	5 4	7 29	8 20	7 3	4 51	7 21	8 30	7 17	4 37	7 11	8 40	7 34	4 20	7 0	8 53	1 23	2	4	6
20 Thu.	2 25	3	6	9	6 51	5 4	8 37	9 9	7 4	4 52	8 31	9 16	7 18	4 38	8 24	9 24	7 35	4 21	8 16	9 33	2 22	2	3	5
21 Fri.	1 56	3	6	9	6 52	5 5	9 43	9 53	7 4	4 52	9 40	9 57	7 18	4 38	9 36	10 2	7 35	4 21	9 31	10 9	3 18	1	3	4
22 Sat.	1 26	3	6	8	6 52	5 5	10 47	10 33	7 5	4 53	10 47	10 35	7 19	4 39	10 46	10 37	7 36	4 22	10 45	10 40	4 11	1	3	4
23 Sun.	0 56	3	6	8	6 53	5 6	11 50	11 12	7 5	4 53	11 52	11 10	7 19	4 39	11 54	11 10	7 36	4 22	11 57	11 9	5 3	1	3	4
24 Mon.	0 26	3	5	8	6 53	5 6	.....	11 49	7 6	4 54	.....	11 45	7 20	4 40	.....	11 42	7 37	4 23	.....	11 38	5 52	1	3	4
	SLOW																							
25 Tue.	0 3	3	5	8	6 54	5 7	0 51	12 27	7 6	4 54	0 56	12 22	7 20	4 40	1 1	12 15	7 37	4 23	1 7	12 8	6 42	1	3	4
26 Wed.	0 33	3	5	8	6 54	5 7	1 51	1 7	7 6	4 55	1 58	12 59	7 21	4 41	2 6	12 50	7 37	4 24	2 16	12 40	7 31	2	3	5
27 Thu.	1 3	3	5	8	6 54	5 8	2 50	1 49	7 7	4 56	2 59	1 39	7 21	4 41	3 10	1 29	7 38	4 25	3 21	1 15	8 21	2	3	5
28 Fri.	1 33	2	5	7	6 55	5 8	3 48	2 34	7 7	4 56	3 58	2 23	7 21	4 42	4 10	2 11	7 38	4 25	4 24	1 56	9 12	2	4	6
29 Sat.	2 2	2	4	7	6 55	5 9	4 43	3 22	7 7	4 57	4 54	3 10	7 21	4 43	5 7	2 57	7 38	4 26	5 23	2 41	10 3	2	4	6
30 Sun.	2 31	2	4	6	6 56	5 10	5 35	4 13	7 8	4 58	5 46	4 1	7 22	4 44	6 0	3 48	7 38	4 27	6 17	3 32	10 54	2	4	7
31 Mon.	3 0	2	4	5	6 56	5 10	6 23	5 5	7 8	4 58	6 34	4 54	7 22	4 44	6 47	4 43	7 38	4 28	7 3	4 28	11 44	2	5	7

Moon's phases

E.S.T.

	d	h	m
●	2	3	12
☽	10	6	51
○	17	2	6
☾	24	5	10
●	31	9	13

C.S.T.

	d	h	m
●	2	2	12
☽	10	5	51
○	17	1	6
☾	24	4	10
●	31	8	13

M.S.T.

	d	h	m
●	2	1	12
☽	10	4	51
○	17	12	6
☾	24	3	10
●	31	7	13

P.S.T.

	d	h	m
●	2	0	12
☽	10	3	51
○	17	11	6
☾	24	2	10
●	31	6	13

Longitude and Latitude of Foreign Cities
and Time Corresponding to 12:00 Noon, E.S.T.

City	Long.	Lat.	Time
	° ′	° ′	
Aberdeen, Scotland	2 9 w	57 9 n	5:00 p.m.
Adelaide, Australia	138 36 e	34 55 s	2:30 a.m.*
Algiers, Algeria	3 0 e	36 50 n	5:00 p.m.
Amsterdam, Netherlands	4 53 e	52 22 n	5:00 p.m.
Ankara, Turkey	32 55 e	39 55 n	7:00 p.m.
Asunción, Paraguay	57 40 w	25 15 s	1:00 p.m.
Athens, Greece	23 43 e	37 58 n	7:00 p.m.
Auckland, New Zealand	174 45 e	36 52 s	5:00 a.m.*
Bangkok, Thailand	100 30 e	13 45 n	0:00 a.m.*
Barcelona, Spain	2 9 e	41 23 n	5:00 p.m.
Belém, Brazil	48 29 w	1 23 s	2:00 p.m.
Belfast, Northern Ireland	5 56 w	54 37 n	5:00 p.m.
Belgrade, Yugoslavia	20 32 e	44 52 n	6:00 p.m.
Berlin, Germany	13 25 e	52 30 n	6:00 p.m.
Birmingham, England	1 55 w	52 25 n	5:00 p.m.
Bogotá, Colombia	74 15 w	4 32 n	12:00 noon
Bombay, India	72 48 e	19 0 n	10:30 p.m.
Bordeaux, France	0 31 w	44 50 n	5:00 p.m.
Bremen, Germany	8 49 e	53 5 n	6:00 p.m.
Brisbane, Australia	153 8 e	27 29 s	3:00 a.m.*
Bristol, England	2 35 w	51 28 n	5:00 p.m.
Brussels, Belgium	4 22 e	50 52 n	5:00 p.m.
Bucharest, Rumania	26 7 e	44 25 n	7:00 p.m.
Budapest, Hungary	19 5 e	47 30 n	6:00 p.m.
Buenos Aires, Argentina	58 22 w	34 35 s	1:00 p.m.
Cairo, Egypt	31 21 e	30 2 n	7:00 p.m.
Calcutta, India	88 24 e	22 34 n	10:30 p.m.
Canton, China	113 15 e	23 7 n	1:00 a.m.*
Capetown, U. of S. Af.	18 22 e	33 55 s	7:00 p.m.
Caracas, Venezuela	67 2 w	10 28 n	12:30 p.m.
Cayenne, French Guiana	52 18 w	4 49 n	1:30 p.m.
Chihuahua, Mexico	106 5 w	28 37 n	11:00 a.m.
Chungking, China	106 34 e	29 46 n	0:00 a.m.*
Copenhagen, Denmark	12 34 e	55 40 n	6:00 p.m.
Córdoba, Argentina	64 10 w	31 28 s	1:00 p.m.
Dakar, French West Africa	17 28 w	14 40 n	4:00 p.m.
Darwin, Australia	130 51 e	12 28 s	2:30 a.m.*
Dublin, Ireland	6 15 w	53 20 n	5:00 p.m.
Durban, U. of S. Af.	30 53 e	29 53 s	7:00 p.m.
Edinburgh, Scotland	3 10 w	55 55 n	5:00 p.m.
Frankfurt, Germany	8 41 e	50 7 n	6:00 p.m.
Georgetown, British Guiana	58 15 w	6 45 n	1:30 p.m.
Glasgow, Scotland	4 15 w	55 50 n	5:00 p.m.
Guatemala City, Guatemala	90 31 w	14 37 n	11:00 a.m.
Guayaquil, Ecuador	79 56 w	2 10 s	12:00 noon
Hamburg, Germany	10 2 e	53 33 n	6:00 p.m.
Hammerfest, Norway	23 38 e	70 38 n	6:00 p.m.
Havana, Cuba	82 23 w	23 8 n	12:00 noon
Helsinki, Finland	25 0 e	60 10 n	7:00 p.m.
Hobart, Tasmania	147 19 e	42 52 s	3:00 a.m.*
Iquique, Chile	70 7 w	20 10 s	1:00 p.m.
Irkutsk, U.S.S.R.	104 20 e	52 30 n	0:00 a.m.*
Jakarta, Java	106 48 e	6 16 s	1:00 a.m.*
Jibuti, French Somaliland	43 3 e	11 30 s	8:00 p.m.
Johannesburg, U. of S. Af.	28 4 e	26 12 s	7:00 p.m.
Kingston, Jamaica	76 49 w	17 59 n	12:00 noon
La Paz, Bolivia	68 22 w	16 27 s	1:00 p.m.
Leeds, England	1 30 w	53 45 n	5:00 p.m.
Leningrad, U.S.S.R.	30 18 e	59 56 n	7:00 p.m.
Léopoldville, Belgian Congo	15 17 e	4 18 s	6:00 p.m.

City	Long.	Lat.	Time
	° ′	° ′	
Lima, Peru	77 2 w	12 0 s	12:00 noon
Lisbon, Portugal	9 9 w	38 44 n	5:00 p.m.
Liverpool, England	3 0 w	53 25 n	5:00 p.m.
London, England	0 5 w	51 32 n	5:00 p.m.
Lyon, France	4 50 e	45 45 n	5:00 p.m.
Madrid, Spain	3 42 w	40 26 n	5:00 p.m.
Makassar, Celebes	119 30 e	5 9 s	1:00 a.m.*
Manchester, England	2 15 w	53 30 n	5:00 p.m.
Manila, Philippines	120 57 e	14 35 n	1:00 a.m.*
Marseille, France	5 20 e	43 20 n	5:00 p.m.
Mazatlán, Mexico	106 25 w	23 12 n	11:00 a.m.
Mecca, Saudi Arabia	39 45 e	21 29 n	8:00 p.m.
Melbourne, Australia	144 58 e	37 47 s	3:00 a.m.*
Mexico City, Mexico	99 7 w	19 26 n	11:00 a.m.
Milan, Italy	9 10 e	45 27 n	6:00 p.m.
Montevideo, Uruguay	56 10 w	34 53 s	1:30 p.m.
Moscow, U.S.S.R.	37 36 e	55 45 n	7:00 p.m.
Munich, Germany	11 35 e	48 8 n	6:00 p.m.
Nagasaki, Japan	129 57 e	32 48 n	2:00 a.m.*
Nagoya, Japan	136 56 e	35 7 n	2:00 a.m.*
Nairobi, Kenya	36 55 e	1 25 n	8:00 p.m.
Nanking, China	118 53 e	32 3 n	1:00 a.m.*
Naples, Italy	14 15 e	40 50 n	6:00 p.m.
Newcastle-on-Tyne, Eng.	1 37 w	54 58 n	5:00 p.m.
Odessa, U.S.S.R.	30 48 e	46 27 n	7:00 p.m.
Osaka, Japan	135 30 e	34 32 n	2:00 a.m.*
Oslo, Norway	10 42 e	59 57 n	6:00 p.m.
Panamá City, Panamá	79 32 w	8 58 n	12:00 noon
Paramaribo, Surinam	55 15 w	5 45 n	1:30 p.m.
Paris, France	2 20 e	48 48 n	5:00 p.m.
Peiping, China	116 25 e	39 55 n	1:00 a.m.*
Perth, Australia	115 52 e	31 57 s	1:00 a.m.*
Plymouth, England	4 5 w	50 25 n	5:00 p.m.
Port Moresby, Papau Ter.	147 8 e	9 25 s	3:00 a.m.*
Prague, Czechoslovakia	14 26 e	50 5 n	6:00 p.m.
Rangoon, Burma	96 0 e	16 50 n	11:30 p.m.
Reykjavik, Iceland	21 58 w	64 4 n	4:00 p.m.
Rio de Janeiro, Brazil	43 12 w	22 57 s	2:00 p.m.
Rome, Italy	12 27 e	41 54 n	6:00 p.m.
San Juan, Puerto Rico	66 10 w	18 30 n	1:00 p.m.
Santiago, Chile	70 45 w	33 28 s	1:00 p.m.
São Paulo, Brazil	46 31 w	23 31 s	2:00 p.m.
São Salvador, Brazil	38 27 w	12 56 s	2:00 p.m.
Shanghai, China	121 28 e	31 10 n	1:00 a.m.*
Singapore, British Malaya	103 55 e	1 14 n	0:30 a.m.*
Sofia, Bulgaria	23 20 e	42 40 n	7:00 p.m.
Stockholm, Sweden	18 3 e	59 17 n	6:00 p.m.
Sydney, Australia	151 0 e	34 0 s	3:00 a.m.*
Tananarive, Madagascar	47 33 e	18 50 s	8:00 p.m.
Teheran, Iran	51 45 e	35 45 n	8:30 p.m.
Tokyo, Japan	139 45 e	35 40 n	2:00 a.m.*
Tripoli, Libya	13 12 e	32 57 n	6:00 p.m.
Venice, Italy	12 20 e	45 26 n	6:00 p.m.
Veracruz, Mexico	96 10 w	19 10 n	11:00 a.m.
Vienna, Austria	16 20 e	48 14 n	6:00 p.m.
Vladivostok, U.S.S.R.	132 0 e	43 10 n	2:00 a.m.*
Warsaw, Poland	21 0 e	52 14 n	6:00 p.m.
Wellington, New Zealand	174 47 e	41 17 s	5:00 a.m.*
Zürich, Switzerland	8 31 e	47 21 n	6:00 p.m.

* On the following day.

Longitude, Latitude, Time and Magnetic Declination of U. S. and Canadian Cities

The last column shows the magnetic declination or angle which the magnetic meridian makes with the true (geographic) meridian. The value being marked w or e, the north end of the compass needle points west or east respectively of true north by that number of degrees.

City	Long. w.	Lat. n.	Time*	Dec.
	° ′	° ′		°
Albany, N. Y.	73 45	42 40	12:00 noon	13 w
Amarillo, Tex.	101 50	35 11	11:00 a.m.	12 e
Atlanta, Ga.	84 23	33 45	12:00 noon	2 e
Atlantic City, N. J.	74 25	39 22	12:00 noon	10 w
Austin, Nev.	117 4	39 29	9:00 a.m.	18 e
Baker, Oreg.	117 50	44 47	9:00 a.m.	21 e
Baltimore, Md.	76 38	39 18	12:00 noon	8 w
Bangor, Maine	68 47	44 48	12:00 noon	19 w
Birmingham, Ala.	86 50	33 30	11:00 a.m.	3 e
Bismarck, N. Dak.	100 47	46 48	11:00 a.m.	14 e
Boise, Idaho	116 13	43 36	10:00 a.m.	19 e
Boston, Mass.	71 5	42 21	12:00 noon	15 w
Buffalo, N. Y.	78 50	42 55	12:00 noon	7 w
Calgary, Alta.	114 1	51 1	10:00 a.m.	23 e
Carlsbad, N. Mex.	104 15	32 26	10:00 a.m.	13 e
Charleston, S. C.	79 56	32 47	12:00 noon	2 w
Charleston, W. Va.	81 38	38 21	12:00 noon	2 w
Charlotte, N. C.	80 50	35 14	12:00 noon	2 w
Cheyenne, Wyo.	104 52	41 9	10:00 a.m.	15 e
Chicago, Ill.	87 37	41 50	11:00 a.m.	2 e
Cincinnati, Ohio	84 30	39 8	12:00 noon	1 e
Cleveland, Ohio	81 37	41 28	12:00 noon	5 w
Columbia, S. C.	81 2	34 0	12:00 noon	1 w
Columbus, Ohio	83 1	40 0	12:00 noon	2 w
Dallas, Tex.	96 46	32 46	11:00 a.m.	9 e
Denver, Colo.	105 0	39 45	10:00 a.m.	14 e
Des Moines, Iowa	93 37	41 35	11:00 a.m.	7 e
Detroit, Mich.	83 3	42 20	12:00 noon	3 w
Dubuque, Iowa	90 40	42 31	11:00 a.m.	5 e
Duluth, Minn.	92 5	46 49	11:00 a.m.	7 e
Eastport, Maine	67 0	44 54	12:00 noon	21 w
El Centro, Calif.	115 33	32 38	9:00 a.m.	15 e
El Paso, Tex.	106 29	31 46	11:00 a.m.	13 e
Eugene, Oreg.	123 5	44 3	9:00 a.m.	22 e
Fargo, N. Dak.	96 48	46 52	11:00 a.m.	10 e
Flagstaff, Ariz.	111 41	35 13	10:00 a.m.	15 e
Fresno, Calif.	119 48	36 44	9:00 a.m.	17 e
Garden City, Kans.	100 53	37 58	10:00 a.m.	13 e
Grand Junction, Colo.	108 33	39 5	10:00 a.m.	15 e
Grand Rapids, Mich.	85 40	42 58	11:00 a.m.	1 e
Havre, Mont.	109 43	48 33	10:00 a.m.	20 e
Helena, Mont.	112 2	46 35	10:00 a.m.	19 e
Honolulu, Hawaii	157 50	21 18	7:00 a.m.	—
Hoquiam, Wash.	123 54	46 59	9:00 a.m.	23 e
Hot Springs, Ark.	93 3	34 31	11:00 a.m.	8 e
Idaho Falls, Idaho	112 1	43 30	10:00 a.m.	18 e
Indianapolis, Ind.	86 10	39 46	11:00 a.m.	1 e
Jackson, Miss.	90 12	32 20	11:00 a.m.	7 e
Jacksonville, Fla.	81 40	30 22	12:00 noon	1 e
Kansas City, Mo.	94 35	39 6	11:00 a.m.	9 e
Key West, Fla.	81 48	24 33	12:00 noon	3 e
Kingston, Ont.	76 30	44 15	12:00 noon	12 w
Klamath Falls, Oreg.	121 44	42 10	9:00 a.m.	19 e
Knoxville, Tenn.	83 56	35 57	11:00 a.m.	0
Lander, Wyo.	108 40	42 50	10:00 a.m.	17 e
Las Vegas, Nev.	115 12	36 10	9:00 a.m.	16 e
Lewiston, Idaho	117 2	46 24	9:00 a.m.	21 e
Lincoln, Nebr.	96 40	40 50	11:00 a.m.	10 e
London, Ont.	81 34	43 2	12:00 noon	5 w
Los Angeles, Calif.	118 15	34 3	9:00 a.m.	16 e
Louisville, Ky.	85 46	38 15	11:00 a.m.	1 e
Manchester, N. H.	71 30	43 0	12:00 noon	16 w
Memphis, Tenn.	90 3	35 9	11:00 a.m.	6 e
Miami, Fla.	80 12	25 46	12:00 noon	1 e
Milwaukee, Wis.	87 55	43 2	11:00 a.m.	2 e
Minneapolis, Minn.	93 14	44 59	11:00 a.m.	7 e
Mobile, Ala.	88 3	30 42	11:00 a.m.	5 e
Montgomery, Ala.	86 18	32 21	11:00 a.m.	3 e
Montpelier, Vt.	72 32	44 15	12:00 noon	16 w
Montreal, Que.	73 35	45 30	12:00 noon	16 w
Moose Jaw, Sask.	105 31	50 37	10:00 a.m.	18 e
Nashville, Tenn.	86 47	36 10	11:00 a.m.	3 e
Needles, Calif.	114 36	34 50	9:00 a.m.	15 e
Nelson, B. C.	117 17	49 30	9:00 a.m.	23 e
New Haven, Conn.	72 55	41 19	12:00 noon	12 w
New Orleans, La.	90 4	29 57	11:00 a.m.	6 e
New York, N. Y.	73 58	40 47	12:00 noon	12 w
Nogales, Ariz.	110 56	31 21	10:00 a.m.	14 e
Nome, Alaska	165 30	64 25	6:00 a.m.	19 e
North Platte, Nebr.	100 46	41 8	11:00 a.m.	12 e
Oklahoma City, Okla.	97 28	35 26	11:00 a.m.	10 e
Ottawa, Ont.	75 43	45 24	12:00 noon	14 w
Philadelphia, Pa.	75 10	39 57	12:00 noon	10 w
Phoenix, Ariz.	112 4	33 29	10:00 a.m.	15 e
Pierre, S. Dak.	100 21	44 22	11:00 a.m.	12 e
Pittsburgh, Pa.	79 57	40 27	12:00 noon	5 w
Port Arthur, Ont.	89 17	48 30	12:00 noon	1 e
Portland, Maine	70 15	43 40	12:00 noon	17 w
Portland, Oreg.	122 41	45 31	9:00 a.m.	23 e
Providence, R. I.	71 24	41 50	12:00 noon	15 w
Quebec, Que.	71 11	46 49	12:00 noon	20 w
Raleigh, N. C.	78 39	35 46	12:00 noon	4 w
Reno, Nev.	119 49	39 30	9:00 a.m.	18 e
Richfield, Utah	112 5	38 46	10:00 a.m.	17 e
Richmond, Va.	77 29	37 33	12:00 noon	6 w
Roanoke, Va.	79 57	37 17	12:00 noon	3 w
Sacramento, Calif.	121 30	38 35	9:00 a.m.	17 e
St. John, N. B.	66 10	45 18	1:00 p.m.	22 w
St. Louis, Mo.	90 12	38 35	11:00 a.m.	5 e
Salmon, Idaho	113 54	45 11	10:00 a.m.	20 e
Salt Lake City, Utah	111 54	40 46	10:00 a.m.	17 e
San Antonio, Tex.	98 33	29 23	11:00 a.m.	10 e
San Diego, Calif.	117 10	32 42	9:00 a.m.	15 e
San Francisco, Calif.	122 26	37 47	9:00 a.m.	18 e
Santa Fe, N. Mex.	105 57	35 41	10:00 a.m.	13 e
Sault Ste. Marie, Mich.	84 21	46 30	11:00 a.m.	4 w
Savannah, Ga.	81 5	32 5	12:00 noon	0
Scranton, Pa.	75 39	41 24	12:00 noon	10 w
Seattle, Wash.	122 20	47 37	9:00 a.m.	23 e
Shreveport, La.	93 42	32 28	11:00 a.m.	8 e
Silver City, N. Mex.	108 18	32 46	10:00 a.m.	14 e
Sioux Falls, S. Dak.	96 44	43 33	11:00 a.m.	11 e
Sitka, Alaska	135 15	57 10	9:00 a.m.	30 e
Spokane, Wash.	117 26	47 40	9:00 a.m.	23 e
Springfield, Ill.	89 38	39 48	11:00 a.m.	4 e
Springfield, Mass.	72 34	42 6	12:00 noon	14 w
Springfield, Mo.	93 17	37 13	11:00 a.m.	7 e
Syracuse, N. Y.	76 8	43 2	12:00 noon	11 w
Tampa, Fla.	82 27	27 57	12:00 noon	2 e
Toronto, Ont.	79 24	43 40	12:00 noon	8 w
Trinidad, Colo.	104 30	37 10	10:00 a.m.	14 e
Victoria, B. C.	123 21	48 25	9:00 a.m.	24 e
Watertown, N. Y.	75 55	43 58	12:00 noon	13 w
Wichita, Kans.	97 17	37 43	11:00 a.m.	10 e
Wilmington, N. C.	77 57	34 14	12:00 noon	3 w
Winnipeg, Man.	97 7	49 54	11:00 a.m.	11 e
Yakima, Wash.	120 33	46 34	9:00 a.m.	22 e

* Corresponding to 12:00 noon, E.S.T.

The World Calendar

FIRST QUARTER						
JANUARY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
FEBRUARY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
MARCH						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SECOND QUARTER						
APRIL						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
MAY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
JUNE						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
						W*

THIRD QUARTER						
JULY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
AUGUST						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
SEPTEMBER						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

FOURTH QUARTER						
OCTOBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
NOVEMBER						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
DECEMBER						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
						W†

* The leap-year world holiday, Leap-Year Day, W or June 31 (an extra day), follows June 30 in leap years only.
† The year-end world holiday, Worlds Day, W or Dec. 31 (365th day), follows Dec. 30 every year.

Exposition

The perpetual World Calendar divides the year into equal quarters of 91 days, or 13 weeks, or 3 months or approximately one season. The first month in each quarter contains 31 days. The other two months have 30 days each. Every month thus has 26 weekdays plus Sundays. Every quarter begins on a Sunday, the first day of the week, and ends on a Saturday, the seventh day of the week, which is convenient for businessmen, accountants and educators because the closing day of every quarter does not fall on a Sunday. Every year begins logically on the accepted first day of the week, a Sunday, Jan. 1.

The 364-day year is not complete however. The 365th day of the year, essential in keeping the calendar in step with the seasons, is the logical year-end world holiday, Worlds Day, dated W or Dec. 31, that follows Saturday, Dec. 30, every year. By giving the 365th day, the year-end world holiday, a name and date, a blank date is avoided. Worlds Day is an integral part of the year; it belongs to and completes the calendar.

The extra day in leap years is the leap-year world holiday, Leap-Year Day dated W or June 31. It follows Saturday, June 30. By placing these two stabilizing days, the leap-year world holiday in leap years at the end of the second quarter and the year-end world holiday every year at the end of the fourth quarter, the calendar becomes balanced and stable.

India placed this calendar before ECOSOC (of the U. N.) in Oct. 1953. On May 16, 1955, time for sending in replies of nations on the desirability of calendar reform was extended until May 1956.

Morning and Evening Stars and Planets in 1956

MERCURY

Evening star, Jan. 1 to Jan. 27
Morning star, Jan. 27 to Apr. 5
Evening star, Apr. 5 to May 25
Morning star, May 25 to July 19
Evening star, July 19 to Sept. 26
Morning star, Sept. 26 to Nov. 12
Evening star, Nov. 12 to Dec. 31

VENUS

Evening star, Jan. 1 to June 22
Morning star, June 22 to Dec. 31

MARS

Morning star, Jan. 1 to Sept. 10
Evening star, Sept. 10 to Dec. 31

Perpetual Calendar 1800-2000 A.D.

Day of the month	Jan. Oct.	Apr. Jul. *Jan.*	Sept. Dec.	Jun.	Feb. Mar. Nov.	Aug. *Feb.*	May	
1 8 15 22 29	A	B	C	D	E	F	G	Mon.
2 9 16 23 30	G	A	B	C	D	E	F	Tue.
3 10 17 24 31	F	G	A	B	C	D	E	Wed.
4 11 18 25	E	F	G	A	B	C	D	Thur.
5 12 19 26	D	E	F	G	A	B	C	Fri.
6 13 20 27	C	D	E	F	G	A	B	Sat.
7 14 21 28	B	C	D	E	F	G	A	Sun.

....	....	1800	1801	1802	1803	....
1804	1805	1806	1807	....	*1808*	1809
1810	1811	....	*1812*	1813	1814	1815
....	*1816*	1817	1818	1819	....	*1820*
1821	1822	1823	....	*1824*	1825	1826
1827	....	*1828*	1829	1830	1831	....
1832	1833	1834	1835	....	*1836*	1837
1838	1839	....	*1840*	1841	1842	1843
....	*1844*	1845	1846	1847	....	*1848*
1849	1850	1851	....	*1852*	1853	1854
1855	....	*1856*	1857	1858	1859	....
1860	1861	1862	1863	....	*1864*	1865
1866	1867	....	*1868*	1869	1870	1871
....	*1872*	1873	1874	1875	....	*1876*
1877	1878	1879	....	*1880*	1881	1882
1883	....	*1884*	1885	1886	1887	....
1888	1889	1890	1891	....	*1892*	1893
1894	1895	....	*1896*	1897	1898	1899
1900	1901	1902	1903	....	*1904*	1905
1906	1907	....	*1908*	1909	1910	1911
....	*1912*	1913	1914	1915	....	*1916*
1917	1918	1919	....	*1920*	1921	1922
1923	....	*1924*	1925	1926	1927	....
1928	1929	1930	1931	....	*1932*	1933
1934	1935	....	*1936*	1937	1938	1939
....	*1940*	1941	1942	1943	....	*1944*
1945	1946	1947	....	*1948*	1949	1950
1951	....	*1952*	1953	1954	1955	....
1956	1957	1958	1959	....	*1960*	1961
1962	1963	....	*1964*	1965	1966	1967
....	*1968*	1969	1970	1971	....	*1972*
1973	1974	1975	....	*1976*	1977	1978
1979	....	*1980*	1981	1982	1983	....
1984	1985	1986	1987	....	*1988*	1989
1990	1991	....	*1992*	1993	1994	1995
....	*1996*	1997	1998	1999	....	*2000*

EXAMPLES

(1) Given Nov. 20, 1891, to find the day of the week. Under Nov., opposite 20, is G. In the 1891 column, opposite G is Fri., ***ans.***

(2) Given Fri., Oct. —, 1868, to find the possible days of the month. In the 1868 column, opposite Fri. is G. Under Oct., G gives 2, 9, 16, 23, 30, ***ans.***, the Fridays of Oct., 1868.

(3) Given Mon., — 5, 1811, to find the possible months. In the 1811 column, opposite Mon. is B. Opposite 5, B gives Aug., the only common-year month available, ***ans.***

(4) Given Sat., Feb. 29, —, to find the possible years. Under Feb., leap-year, opposite 29, is F. Opposite Sat. F gives leap-years 1812, 1840 1868, 1896, etc., ***ans.***

NOTE: In leap-years (those shown in italics), use the Jan. and Feb. in italics, but do not use these for common years. The years 1800 and 1900 were not leap-years; 2000 will be a leap-year.

Morning and Evening Stars and Planets (contd.)

JUPITER

Morning star, Jan. 1 to Feb. 16
Evening star, Feb. 16 to Sept. 4
Morning star, Sept. 4 to Dec. 31

SATURN

Morning star, Jan. 1 to May 20
Evening star, May 20 to Nov. 27
Morning star, Nov. 27 to Dec. 31

Mercury may be seen before sunrise over the eastern horizon for a week or more around western elongation from the sun, and after sunset over the western horizon similarly around eastern elongations. Western elongations occur Feb. 21 (Mercury in Capricornus), June 20 (in Taurus near Aldebaran), and Oct. 11 (in w. Virgo). Eastern elongations occur Jan. 11 (in central Capricornus), May 2 (in Taurus, e. of the Pleiades), Aug. 31 (in w. Virgo), and Dec. 24 (in Sagittarius northeast of the dipper).

Venus is at eastern elongation in the

western sky, Apr. 12 (Venus being n. of Aldebaran). Greatest brilliancy occurs May 15 (in e. Taurus), with stellar magnitude —4.2. It is invisible around inferior conjunction with the sun (June 22). Greatest brilliancy occurs again (eastern sky) on July 28 at the Taurus-Orion border, the magnitude being the same. Western elongation occurs Aug. 31 (in Gemini, s. of Castor and Pollux).

Mars in Jan. is in Libra, Scorpius, and Ophiuchus; Feb. in Ophiuchus and Sagittarius; in mid-March in Sagittarius, near the dipper; Apr. to Oct. in Capricornus and Aquarius; in Dec. in Pisces. On Sept. 10 Mars makes a favorable opposition to the sun, and on Sept. 6–7 it is nearer the earth than it has been in many years and nearer than it will be for many years to come, the distance being 35,163,000 mi. The planet then is in eastern Aquarius and the stellar magnitude —2.6. During the summer and autumn many astronomers will be observing the planet.

1955

JANUARY

S	M	T	W	T	F	S
—	—	—	—	—	—	[1]
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

FEBRUARY

S	M	T	W	T	F	S
—	—	1	2	3	4	[5]
6	7	8	9	10	11	[12]
13	14	15	16	17	18	19
20	21	[22]	23	24	25	26
27	28	—	—	—	—	—

MARCH

S	M	T	W	T	F	S
—	—	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	—	—

APRIL

S	M	T	W	T	F	S
—	—	—	—	—	1	2
3	4	5	6	7	[8]	9
[10]	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	[30]	31	—	—	—	—

JUNE

S	M	T	W	T	F	S
—	—	—	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	—	—

JULY

S	M	T	W	T	F	S
—	—	—	—	—	1	2
3	[4]	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30

AUGUST

S	M	T	W	T	F	S
—	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	—	—	—

SEPTEMBER

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	[5]	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	—

OCTOBER

S	M	T	W	T	F	S
—	—	—	—	—	—	1
2	3	4	5	6	7	8
9	10	11	[12]	13	14	15
16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

NOVEMBER

S	M	T	W	T	F	S
—	—	1	2	3	4	5
6	7	[8]	9	10	[11]	12
13	14	15	16	17	18	19
20	21	22	23	[24]	25	26
27	28	29	30	—	—	—

DECEMBER

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
[25]	[26]	27	28	29	30	31

1956

JANUARY

S	M	T	W	T	F	S
[1]	[2]	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	—	—	—	—

FEBRUARY

S	M	T	W	T	F	S
—	—	—	1	2	3	4
5	6	7	8	9	10	11
[12]	13	14	15	16	17	18
19	20	21	[22]	23	24	25
26	27	28	29	—	—	—

MARCH

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	[30]	31

APRIL

S	M	T	W	T	F	S
[1]	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	—	—	—	—	—

MAY

S	M	T	W	T	F	S
—	—	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	[30]	31	—	—

JUNE

S	M	T	W	T	F	S
—	—	—	—	—	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY

S	M	T	W	T	F	S
1	2	3	[4]	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	—	—	—	—

AUGUST

S	M	T	W	T	F	S
—	—	—	1	2	3	4
[5]	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	—

SEPTEMBER

S	M	T	W	T	F	S
—	—	—	—	—	—	1
2	[3]	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24	25	26	27	28	29

OCTOBER

S	M	T	W	T	F	S
—	1	2	3	4	5	6
7	8	9	10	11	[12]	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	—	—	—

NOVEMBER

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	[5]	[6]	7	8	9	10
[11]	[12]	13	14	[15]	16	17
18	19	20	21	[22]	23	24
25	26	27	28	29	30	—

DECEMBER

S	M	T	W	T	F	S
—	—	—	—	—	—	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24/31	[25]	26	27	28	29

1957

JANUARY

S	M	T	W	T	F	S
—	—	[1]	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	—	—

FEBRUARY

S	M	T	W	T	F	S
—	—	—	—	—	1	2
3	4	[5]	6	7	8	9
10	11	[12]	13	14	15	16
17	18	19	20	21	[22]	23
24	25	26	27	28	—	—

MARCH

S	M	T	W	T	F	S
—	—	—	—	—	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30

APRIL

S	M	T	W	T	F	S
—	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	[19]	20
[21]	22	23	24	25	26	27
28	29	30	—	—	—	—

MAY

S	M	T	W	T	F	S
—	—	—	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	[30]	31	—

JUNE

S	M	T	W	T	F	S
—	—	—	—	—	—	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24	25	26	27	28	29

JULY

S	M	T	W	T	F	S
—	1	2	3	[4]	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	—	—	—

AUGUST

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER

S	M	T	W	T	F	S
1	[2]	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	—	—	—	—	—

OCTOBER

S	M	T	W	T	F	S
—	—	1	2	3	4	5
6	7	8	9	10	11	[12]
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	—	—

NOVEMBER

S	M	T	W	T	F	S
—	—	—	—	—	1	2
3	4	[5]	6	7	8	9
10	[11]	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	[28]	29	30

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	[18]	19	20	21
22	23	24	[25]	26	27	28
29	30	31	—	—	—	—

Jupiter is in Leo in Jan., near Regulus, ssing close to and north of the star dur- g the last week of Jan. It repeats this uation on the first week of July. It oves into Virgo the last week of Oct. d remains here to the end of the year. the morning of Oct. 25, Venus is in se conjunction with Jupiter, Venus be- g 0°13′ north of Jupiter.

Saturn is in eastern Libra and Scorpius til Nov.; after that, in Scorpius and hiuchus. At opposition in May the mag- ude is +0.2. On the 3rd week in Dec. it passes north of Antares. On Dec. 26 it is in close conjunction with Venus, the latter being 0°30′ south.

Uranus is in Cancer all the year; it is west of the quadrilateral and southeast of Pollux until Sept.; in Nov. it is just south of M 44, the Beehive star cluster. It is visible in a field-glass except during July and August. *Neptune* is in Virgo all the year and a few degrees east of Spica; it is visible in a small telescope except in Oct. and Nov. *Pluto* is in the eastern part of the sickle of Leo.

The Sun

There are countless millions of far dis- nt, superheated, self-luminous gaseous dies called stars and each one is in itself sun. Our Sun—the star around which r whole solar system revolves—is at a ean distance of 93,003,000 miles from the rth, has a diameter of 865,390 miles, a surface temperature of about 11,000° F. and an interior temperature estimated at millions of degrees. It has a surface area approximately 12,000 times that of the Earth and in volume or bulk it is about 1,306,000 times the size of the Earth. It is a star of average size and temperature.

The Brightest Stars

Star	Constellation	Position, 1950 R.A.	Position, 1950 Dec.	Mag.	Dist.	On meridian 9 p.m.
		h m	° ′		l.-y.	
us	Canis Major	6 42.9	−16 39	−1.6	8	Feb. 16
opus	Carina	6 22.8	−52 40	−0.9	650	Feb. 11
ha Centauri	Centaurus	14 36.2	−60 38	+0.1	4	June 16
a	Lyra	18 35.2	+38 44	0.1	23	Aug. 15
ella	Auriga	5 13.0	+45 57	0.2	42	Jan. 24
turus	Boötes	14 13.4	+19 27	0.2	32	June 10
el	Orion	5 12.1	− 8 15	0.3	545	Jan. 24
cyon	Canis Minor	7 36.7	+ 5 21	0.5	10	Mar. 2
ernar	Eridanus	1 35.9	−57 29	0.6	70	Nov. 30
a Centauri	Centaurus	14 0.3	−60 8	0.9	130	June 7
air	Aquila	19 48.3	+ 8 44	0.9	18	Sept. 3
elgeuse	Orion	5 52.5	+ 7 24	0.9	300	Feb. 3
ebaran	Taurus	4 33.0	+16 25	1.1	54	Jan. 14
ca	Virgo	13 22.6	−10 54	1.2	190	May 28
ux	Gemini	7 42.3	+28 9	1.2	31	Mar. 3
ares	Scorpius	16 26.3	−26 19	1.2	170	July 14
alhaut	Piscis Austrinus	22 54.9	−29 53	1.3	27	Oct. 20
eb	Cygnus	20 39.7	+45 6	1.3	465	Sept. 16
ulus	Leo	10 5.7	+12 13	1.3	70	Apr. 9
a Crucis	Crux	12 44.8	−59 25	1.5	465	May 18
Carinae	Carina	10 43.1	−59 25	1—7	...	Apr. 17
ha-one Crucis	Crux	12 23.8	−62 49	1.6	150	May 13
tor	Gemini	7 31.4	+32 0	1.6	44	Feb. 28
mma Crucis	Crux	12 28.4	−56 50	1.6	...	May 15
ilon Canis Majoris	Canis Major	6 56.7	−28 54	1.6	325	Feb. 19
ilon Ursae Majoris	Ursa Major	12 51.8	+56 14	1.7	50	May 20
atrix	Orion	5 22.4	+ 6 18	1.7	215	Jan. 27
bda Scorpii	Scorpius	17 30.2	−37 4	1.7	205	July 30
ilon Carinae	Carina	8 21.5	−59 21	1.7	325	Mar. 13
a	Cetus	2 16.8	− 3 12	2—9	250	Dec. 11
ilon Orionis	Orion	5 33.7	− 1 14	1.7	405	Jan. 29
a Tauri	Taurus	5 23.1	+28 34	1.8	115	Jan. 27
a Carinae	Carina	9 12.7	−69 31	1.8	...	Mar. 26
na Trianguli Australis	Triangulum Australe	16 43.4	−68 56	1.9	130	July 18
na Persei	Perseus	3 20.7	+49 41	1.9	190	Dec. 27
Ursae Majoris	Ursa Major	13 45.6	+49 34	1.9	220	June 3
mma Geminorum	Gemini	6 34.8	+16 27	1.9	65	Feb. 14
ilon Sagittarii	Sagittarius	18 20.9	−34 25	1.9	165	Aug. 12
na Ursae Majoris	Ursa Major	11 0.7	+62 1	1.9	90	Apr. 22
a Canis Majoris	Canis Major	7 6.4	−26 19	2.0	410	Feb. 22

Symbols

☉ the sun	♃ Jupiter	☌ occultation
☾ the moon	♄ Saturn	☍ opposition
☿ Mercury	♅ Uranus	● new moon
♀ Venus	♆ Neptune	☽ first quarter
⊕ the earth	♇ Pluto	○ full moon
♂ Mars	☌ conjunction	☾ last quarter

The Zodiac and Average Date of Sun Entering

Sign	Constellation	Date	Sign	Constellation	Date
Aries	Mar. 21	Apr. 18	Libra	Sept. 23	Oct. 31
Taurus	Apr. 20	May 14	Scorpius	Oct. 23	Nov. 29
Gemini	May 21	June 21	[Ophiuchus]		Nov. 29
Cancer	June 21	July 20	Sagittarius	Nov. 22	Dec. 17
Leo	July 23	Aug. 10	Capricornus	Dec. 22	Jan. 19
Virgo	Aug. 23	Sept. 16	Aquarius	Jan. 20	Feb. 16
			Pisces	Feb. 19	Mar. 11

The Sun rotates on its axis and, by observation of Sun-spots (great whirling storms in the Sun's atmosphere) and Faculae (bright streaks or areas on the Sun's surface), astronomers have discovered that the rotational speed varies from approximately 24⅔ days at its equator to approximately 34 days near its poles. The Sun is just one star of the great Milky Way Galaxy that is rotating on its galactic axis at a rate that gives the Sun a galactic traveling speed of 175 miles per second. Furthermore, the Sun is moving toward a point known as "the apex of the Sun's way" in the constellation Hercules at a speed of about 12 miles per second.

What we see when we look at the Sun is the glowing surface called the Photosphere. Extending above this surface is the Sun's atmosphere consisting of two layers, one extending outward for a few hundred miles from the Sun's surface and called the Reversing Layer for spectroscopic reasons, the other an outer layer extending several thousand miles and called the Chromosphere because of its reddish color due mostly to superheated hydrogen, helium and calcium. Solar "prominences" occasionally burst out from this layer and extend hundreds of thousands of miles above the Sun's surface. Beyond these layers of solar atmosphere and extending to great height is the outermost observable solar feature, the magnificent Corona of exceedingly slight density that provides an awesome spectacle for observers during total eclipses of the Sun.

20 Famous Comets

Year and no.	Name of comet	Period
		years
1744	De Chéseaux's Comet	.....
1806	Biela's Comet	6.7
1811 I	Great Comet of 1811	3000
1812	Di Vico's Comet	70.7
1815	Olbers' Comet	74.0
1819 I	Encke's Comet	3.3
1819	Pons-Winnecke Comet	6.0
1835 III	Halley's Comet	76.3
1843 I	Great Comet of 1843	512.4
1844 II	Great Comet of 1844	102,050
1858 VI	Donati's Comet	2,040 (?)
1864 II	Great Comet of 1864	2,800,000
1871 III	Tuttle's Comet	13.8
1874 III	Coggia's Comet	6,000 (?)
1879	Brorsen's Comet	5.6
1881 II	Tebbutt's Comet	.....
1889 VI	Swift's 2nd Comet	7.0
1892 III	Holmes' Comet	6.9
1923	d'Arrest's Comet	6.6
1925 II	Comet Schwassmann-Wachmann	16.2

Comets

In ancient times comets were supposed to be omens of sudden death, war, revolution or other dire events in human affairs and practically nothing was known of their true nature. They still offer puzzling problems to modern astronomers and, with about 1000 listed, new ones are being discovered and charted each year. In general comets consist of a nucleus (sometimes lacking) surrounded by a head or "coma" (from the Greek word for hair because of its hazy appearance) from which extends the great tail that makes the passage of a comet through our skies such a striking spectacle. Comets come in varying sizes but the average diameter of the heads of a large number of observed comets is about 80,000 miles and the tail length may stretch out to more than 100,000,000 miles. The density of comets is so low, however, that we can see the stars through them and there is more actual material in one cubic inch of ordinary air than in 200 cubic miles of the tail of a comet.

The luminous tails of comets were believed, for many centuries, to be merely clouds high in our atmosphere. Tycho Brahe, eccentric Danish astronomer, proved that the comet he observed in 1577 was a celestial object far beyond the limit of the Earth's atmosphere. But the great forward step in the study of comets came when Edmund Halley, who became England's Astronomer Royal, carefully observed a comet in 1682, checked with previous observations, calculated its orbit and predicted its return to our skies in 1758 or 1759. Halley died in 1742 but the comet now named after him, reappeared on schedule and a search through ancient records indicated that it had been observed in repeated appearances as far back as 2

B.C. Its last appearance was marked by its perihelion passage in 1910 and its next visit to our skies will occur in 1986. Halley's fulfilled prediction was the first definite proof that comets have regular orbits and time schedules or are, as the astronomers say, "periodic". The known "periods" (time intervals between appearances) of comets vary from the 3.3 years of Encke's Comet to thousands of years for wider travelers. No known great comets are scheduled for appearance in our sky this year.

A curious thing about comets is that their tails always trail from the head in a direction away from the Sun, so that when a comet is moving away from the Sun, the tail stretches out in front of the head. A comet's tail is so tenuous as to be almost a vacuum. The Earth passed through the tail of Halley's Comet in May, 1910, and on that occasion astronomers heard nothing, felt nothing and saw nothing to indicate that such passage had any observable effect on the Earth.

The Polar Auroras

It has been definitely established that Sun-spots are the direct cause of the greatest electrical show on Earth, a double feature, the Aurora Borealis (Northern Lights) and the Aurora Australis (Southern Lights). Sun-spots are magnetic storms of vast dimensions on the surface of the Sun and they shoot out electrified particles into space. Those that come toward the Earth are drawn toward the Earth's magnetic poles and consequently these magnetic poles are the radiating centers of those spectacular electromagnetic displays in the sky that we commonly call the "Northern Lights" or the "Southern Lights", depending upon whether we see them in the northern or southern hemisphere. The electrical particles from the Sun-spots strike the upper regions of our atmosphere where the component gases nitrogen, oxygen and extremely minor amounts of argon, helium, neon, hydrogen and carbon dioxide) are very much rarefied and cause them to vibrate and glow in colors characteristic of the various elements, just as a neon sign glows when an electric charge is passed through it. The Sun-spots that cause auroral displays also cause the magnetic storms that interfere with radio reception, telephone, telegraph and cable traffic and other electromagnetic devices such as compasses and various aviation accessories.

There is an almost infinite variety to the auroral display. The lights may sweep across the sky in waves, in streamers or in folds like draped curtains. Or it may be a stationary glow. Sometimes there is little or no color in these waves, sheets or streamers of light. At other times the lights may be rich in red or green or pastel shades. Rose color and lavender and violet and purple are common. Blue is rare but has been seen. The "Northern Lights" have been seen as far south as New Orleans and the Florida peninsula and the "Southern Lights" have been seen as far north as New Zealand and Australia, but the maximum occurrence of these auroral displays is along the borders of the Arctic and Antarctic regions. Since these are atmospheric displays, our atmosphere must extend to the extreme height at which auroral lights are observed. Prof. Carl Störmer of the University of Oslo found this to be about 600 miles. He further found that no auroral lights came closer to the Earth's surface than 50 or 60 miles.

The Change of Seasons

It is enough to state that the earth is nearer to the sun in January than it is in July to convince those who live in the northern hemisphere that there must be some other explanation than that for the seasonal changes on our globe. The reason for the change in seasons is that the axis of rotation of the earth is inclined to the perpendicular of the plane of its orbit around the sun at an angle of approximately 23½°, so there is a proportional shifting of the angle of the sun's rays falling on different portions of the earth's surface at different times of the year.

On or about June 21, the north end of the earth's axis is inclined to its limit toward the sun. In the northern hemisphere this is our summer solstice. We then have our longest daylight period and a maximum of heat and light from the sun, whose perpendicular rays are falling on the Tropic of Cancer, 23½° north of the equator. Six months later, on or about Dec. 22, the earth has reached a position in its orbit that finds the north end of its axis inclined at its maximum away from the sun. This is our winter solstice. We then have our shortest daylight period and a minimum of heat and light from the sun, which is over the Tropic of Capricorn, 23½° south of the equator. Conditions are reversed in the southern hemisphere for obvious reasons. Their winter is our summer; their summer is our winter. Twice a year, at the equinoxes in March and September, the sun is on the equator, the day is of equal length all over the world and each hemisphere receives the same amount of light and heat from the rays of the sun.

If the effect in the change of the angle of the sun's rays on the earth's surface

were instantaneous, our coldest period would be at the winter solstice and our warmest period at the summer solstice, but because of the blanket of atmosphere around the earth and the cumulative effect in the heating or cooling of the earth's surface, we have "the lag of the seasons," which brings our warmest and coldest periods some 5 or 6 weeks after the sun is "farthest north" or "farthest south."

Seasons for the Northern Hemisphere, 1956

Eastern Standard Time

March 20, 10:21 A.M. Sun enters sign of Aries; spring begins.
June 21, 5:24 A.M. Sun enters sign of Cancer; summer begins.
Sept. 22, 8:36 P.M. Sun enters sign of Libra; autumn begins.
Dec. 21, 4:00 P.M. Sun enters sign of Capricornus; winter begins.

Planet Table

	Mean distance from sun in millions of miles	Period of revolution around the sun	Eccentricity of orbit	Inclination to ecliptic	Diameter	Period of rotation on axis	Inclination of equator to orbit plane	Surface gravity (earth = 1)	Oblateness	Mean velocity in orbit	Max. stellar mag.
				° ′	miles		°			mi./sec.	
Sun	.....	.....	.....	.....	865,390	24d.64†	7.2	28	0	.....	−26.7
Moon	.....	(27d.322)*	0.05	5 8	2,159.9	27d.322	6.7	0.16	0	0.63	−12.6
Mercury	36.00	87d.969	0.21	7 0	3,008.5	88d	7	0.28	0	30	−1.2
Venus	67.27	224d.701	0.01	3 24	7,575.4	? ‡	?	0.85	0	22	−4.4
Earth	93.00	365d.256	0.02	0 0	7,926.7§	23h 56m	23.4	1.00	1/297	18.5	.....
Mars	141.71	1y.881	0.09	1 51	4,215.6	24h 37m	25.2	0.38	1/192	15	−2.8
Jupiter	483.88	11y.862	0.05	1 18	88,698§	9h 50m†	3.1	2.6	1/15	8	−2.5
Saturn	887.14	29y.458	0.06	2 29	75,060§	10h 14m†	26.8	1.1	1/9.5	6	−0.4
Uranus	1783.98	84y.013	0.05	0 46	30,878	10 ¾h	98	0.9	1/14	4	+5.7
Neptune	2795.45	164y.793	0.01	1 46	27,700	15h.8	29	1.1	1/40	3	+7.8
Pluto	3675 27	248y.430	0.25	17 9	3,600	??	??	??	??	<3	+14

* Period of revolution around the earth. † This is the rotation at the equator. ‡ Rotation of Venus is uncertain but is probably a few weeks. § The equatorial diameters of the earth, Jupiter, and Saturn are given; polar diameters are: earth, 7900.0 mi., Jupiter 82,789 mi., Saturn 67,170 mi.

SATELLITES. The number of known moons in the solar system is now as follows: for the earth 1; Mars 2; Jupiter 12; Saturn 9; Uranus 5; Neptune 2.

OTHER DATA ON THE EARTH: Equatorial circumference, 24,902.4 mi.; total area, 196,949,970 sq. mi., mass 6.6 sextillion tons.

The Moon

Mars has 2 small satellites or moons, Jupiter has 12, Saturn 9, Uranus 5, and Neptune 2; but the earth has one comparatively large satellite, commonly called the moon. It is a globe 2,160 mi. in diameter with a surface deeply pitted by great craters. It has no atmosphere that astronomers can detect and shines only by reflected light of the sun. Though it seems very bright to us at "full moon," it reflects only about 7% of the light falling on it from the sun.

The orbit of the moon is elliptical, with the earth at one focus. The distance of the moon from the earth varies from 221,463 mi. (perigee) to 252,710 mi. (apogee), the average being 238,857 mi. The curious thing about the moon is that it revolves around the earth in 27 days, 7 hr., 43 min., 11.47 sec., *and rotates on its axis in exactly the same time,* which is why we always see the same side of the moon. Because of what are known as "librations in latitude and longitude" and also a "diurnal libration," we do see "around the edge of the moon" at different times. In this manner a total of 59% of the moon's surface has been observed, but the other 41% never has been seen by the human eye.

Although the moon revolves around the earth in approximately 27⅓ days, it is, on the average, a matter of 29½ days (29 days 12 hr., 44 min., 2.78 sec.) from one new moon to the other, because the earth is moving around the sun while the moon is moving around the earth and the "new moon" depends upon the relative position of the 3 bodies.

If the planes of orbit of the earth and the moon coincided, there would be a eclipse of the moon at every "full moon" and an eclipse of the sun at every "new moon," but the 5° angle between the

lanes of orbit of the earth and the moon auses the moon on most of its revolutions o miss the earth's shadow and the moon's nadow on most trips to miss falling onto ne earth.

The tidal effects of the moon are well known. The "spring tides" occur at the "full moon" and "new moon" and the "neap tides" at first quarter and last quarter.

Eclipses in 1956

(1) *Partial eclipse of the moon,* May 24, isible in Asia, the Indian Ocean, Australia, nd other parts of the eastern hemisphere. t mid-eclipse (11:31 P.M., 120th-meridian-ast standard time), 0.97 of the moon is nder eclipse.

(2) *Total eclipse of the sun,* June 8. he path of totality lies entirely in the outh Pacific Ocean, the maximum dura-on of 4^m45^s occurring at longitude 140° w. nd latitude 41° s. The beginning of the artial phase can be seen from New ealand.

(3) *Total eclipse of the moon,* Nov. 18, visible in North America, and for the most part in South America and the Pacific Ocean. At mid-eclipse (1:48 A.M. E.S.T.) the magnitude of the eclipse is 1.32 times the moon's diameter.

(4) *Partial eclipse of the sun,* Dec. 2, visible over central and eastern Europe, most of northern Africa, and western and central Asia. At the maximum eclipse, occurring in northern Asia at 12 noon, 60th-meridian-east standard time, 0.8 of the sun's disc is obscured.

Astronomical Constants

light-year	5,880,000,000,000 mi.
elocity of light	186,272 mi./sec.
stronomical unit or distance earth-to-sun	93,003,000 mi.
ean distance, earth to moon	238,860 mi.
eneral precession	50″.26
bliquity of the ecliptic	23° 27′ 8″.26—0″.4684(t—1900) *
quatorial radius of the earth	3963.34 statute mi.
olar radius of the earth	3949.99 statute mi.
arth's mean radius	3958.89 statute mi.
olateness of the earth	$\frac{1}{297.0}$
quatorial horizontal parallax of the moon	57′ 2″.70
arth's mean velocity in orbit	18.5 mi./sec.
dereal year	$365^d.2564$
opical year	$365^d.2422$
dereal month	$27^d.3217$
nodic month	$29^d.5306$
dereal day	$23^h\ 56^m\ 4^s.091$ of mean-solar time
ean solar day	$24^h\ 3^m\ 56^s.555$ of sidereal time

* t refers to the year in question, for example 1948.

The Atmosphere

The atmosphere of the Earth—the blan-et of air that surrounds our globe and is sential to life—is of interest to astrono-ers because of its effect on the light that omes to us from heavenly bodies. Air has eight and volume. It refracts (bends or anges the direction of) light rays that nter it. Due to this refraction, we are ble to see the Sun and the Moon before ey rise and after they set. The "twin-ing" of the stars is caused by convection rrents in the air that have a rapidly anging refractive effect on the light from e stars. Our twilight is produced by the ffusion in the atmosphere of light from e Sun when it is below the horizon. eteors become visible when they are eated to incandescence by friction with e atmosphere when, from outer space, ey plunge into it at terrific speed.

Prof. Carl Störmer of the University of Oslo measured the height of the atmosphere and found it to be more than 600 miles, but about half of it by weight is below 18,000 feet. Although we may remark blandly that something is "as light as air", the Earth's atmosphere in bulk is of such enormous weight that at sea level it exerts a pressure of approximately 14.7 pounds per square inch. At higher levels, of course, the pressure is less.

Chemically, the atmosphere is composed of nitrogen (approximately 78 per cent by volume), oxygen (approximately 21 per cent by volume), and extremely minor amounts (about 1 per cent in all by volume) of argon, neon, helium, hydrogen and carbon dioxide. There is also present in the air a varying amount of water vapor, which is known as humidity and is distressing when the percentage is high in warm weather.

Important Meteor Showers

Date	Meteor stream	Radiant in constellation
Jan. 1–4	Quadrantids	Boötes
Feb. 5–10	Alpha Aurigids	Auriga
Mar. 10–12	Zeta Boötids	Boötes
Apr. 19–23	Lyrids	Hercules
May 1–6	May Aquarids	Aquarius
May 30	Eta Pegasids	Pegasus
June 27–30	Pons-Winnecke meteors	Draco
July 14	Alpha Cygnids	Cygnus
July 26–31	Delta Aquarids	Aquarius
Aug. 10–14	Perseids	Cassiopeia
Aug. 10–20	Kappa Cygnids	Cygnus
Aug. 21–31	Zeta Draconids	Draco
Sept. 22	Alpha Aurigids	Auriga
Oct. 2	Quadrantids	Boötes
Oct. 9	Giacobinids	Draco
Oct. 18–23	Orionids	Orion
Nov. 14–18	Leonids	Leo
Dec. 10–13	Geminids	Gemini

Meteors and Meteorites

Meteorites are meteors that have come down to Earth. Meteors are masses of mineral or metal or both that plunge into the Earth's atmosphere at great speed and become incandescent from the resultant friction so that they are seen in the sky as "fireballs" (bolides) or "shooting stars". The "fireballs" are the larger, make a greater flash across the sky and sometimes explode. Meteors come in all sizes but most of them verge on the microscopic and burn up completely in the flash that makes them visible from 40 to 60 miles above the Earth's surface. Millions of them enter our atmosphere every twenty-four hours and probably not more than one or two a day survive to strike the ground as meteorites.

The largest meteorite ever found is located near Grootfontein, Southwest Africa, and its weight is estimated between 50 and 70 tons. The second largest meteorite (the Ahnighito, weight 36½ tons) was found by Admiral Peary, Arctic explorer, at Cape York, Greenland, and is now on exhibition in the Hayden Planetarium, New York City. The largest meteorite found on United States soil is the Willamette (weight 15½ tons), which fell near Portland, Oreg., and is now in the American Museum of Natural History, New York City.

Craters produced by the fall of meteorites have been found in many countries. The first to be recognized and the largest known is Meteor Crater in Arizona, a depression about 4,000 feet in diameter, about 600 feet deep, and with exterior walls rising 150 feet above the surrounding plain. Meteor craters have been found near Odessa, Texas; Haviland, Kansas; in the Arabian Desert; in Central Australia and—a notable group of fifty or more—in the region of the Stony Tunguska River in northern Siberia.

Many meteors travel in swarms, believed in some cases to be disintegrated comets. The Perseid shower that occurs annually Aug. 10–14 is thought by some astronomers to be all that remains of Tuttle's Comet and the Leonid shower, which reaches a maximum in mid-November every 33 years, similarly is suspected of being what is left of Tempel's Comet. The Leonid shower of 1833 was the greatest meteor display of which astronomers have record.

Projection Planetaria

Adler Planetarium, 900 E. Achsah Bond Drive, Chicago, Ill.
Director, Wagner Schlesinger.

Fels Planetarium, 20th St., Benjamin Franklin Pkwy., Philadelphia, Pa.
Director, I. M. Levitt.

Griffith Planetarium, Los Angeles, Calif.
Director, Dinsmore Alter.

Hayden Planetarium, 81st St., Central Park West, New York, N. Y.
General Manager, Joseph M. Chamberlain.

Buhl Planetarium, Federal and West Ohio Sts., Pittsburgh, Pa.
Director, Arthur L. Draper.

Morehead Planetarium, University of North Carolina, Chapel Hill, N. C.
Manager, A. Jenzano.

Morrison Planetarium, Golden Gate Park, San Francisco, Calif.
Manager, George W. Bunton.

Seymour Planetarium, Museum of Natural History, Springfield, Mass.
Director, Frank D. Korkosz.

Notable Telescopes of the World

Refractor Telescopes

Size in inches	Observatory	Location
40	Yerkes	Williams Bay, Wis.
36	Lick	Mt. Hamilton, Calif.
32.7	Paris (Univ. of)	Meudon, France
31.5	Astrophysical	Potsdam, Germany
30	Allegheny	Pittsburgh, Pa.
30	Bischoffsheim	Nice, France
30	Poulkova	Leningrad, U.S.S.R.

Reflector Telescopes

200	Palomar	Palomar Mt., Calif.
100	Mt. Wilson	Pasadena, Calif.
82	McDonald	Mt. Locke, Texas
74	Dunlap	Richmond Hill, Ont.
72	Lord Ross (dismantled)	Parsonstown, Ireland
72	Dominion Astrophysical	Victoria, B. C.
69	Perkins	Delaware, Ohio
61	Harvard	Harvard, Mass.
60	Bloemfontein	Bloemfontein, U. of S. A
60	Mt. Wilson	Pasadena, Calif.
60	Córdoba	Bosque Alegre, Argentir

THE OTHER NATIONS OF THE WORLD

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A GUIDE TO MAIN HISTORICAL, POLITICAL, ECONOMIC, GEOGRAPHIC AND SOCIAL FACTS

Prepared by the Staff of ENCYCLOPAEDIA BRITANNICA

Under the direction of

WALTER YUST, Editor-in-chief

A record of later events may be found in the section: NEWS RECORD OF 1955.

Afghanistan (Kingdom)

Area: approx. 270,000 square miles.
Population (est. 1953): 13,000,000 (approx. 73% Afghan, 23% Tadchik, 4% Mongolian and others).
Density per square mile: c. 48.1.
Ruler: Mohammed Zaher Shah.
Prime Minister: Mohammed Daud Khan.
Principal cities (est. 1953): Kabul, 310,000 (capital); Kandahar, 195,000 (trading center); Herat, 150,000 (farming center).
Monetary unit: Afghani.
Languages: Pushtu (official), Persian.
Religion: Mohammedan (Sunni, 90%; Shiah, 10%).

HISTORY. Wedged between Pakistan, Iran and the U.S.S.R. in southwestern Asia without outlet to the sea, Afghanistan did not become an independent state until 1747. Previously, it had been either a cluster of small states under nominal Arab rule, part of Mongol or Mogul empires, or dismembered among India, Persia and the Uzbeks. By the 19th century it had passed into the British sphere of influence.

In 1880 Great Britain recognized Abdur Rahman Khan as Emir and gave him an annual subsidy of more than $500,000 and delegate management of his foreign relations to Britain. His son, Habibullah, succeeded him in 1901 and kept Afghanistan neutral in World War I despite strong pressure of pro-Turkish elements.

On Aug. 8, 1919, a treaty was signed making Afghanistan free and independent of all British control. The country maintained strict neutrality in World War II, and was admitted to the United Nations in Nov. 1946. Relations with Pakistan have been strained by a dispute over areas inhabited by the Pathans in the North West Frontier Province.

GOVERNMENT. Under the 1932 Constitution, Afghanistan is a constitutional monarchy, with authority vested in the sovereign and Parliament, which has a Senate of 50 members, who are named for life by the sovereign, and a National Assembly of 171 elected members. Executive power is exercised by the sovereign and Cabinet headed by the Prime Minister.

Military service is compulsory. The army strength is about 75,000, supplemented by tribal bands. There is a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education is nominally compulsory. Primary schools exist in many parts of the country, but secondary schools only in Kabul and provincial capitals. There were 100,250 pupils in 334 elementary schools in 1951. There were also 32 secondary schools and a university at Kabul.

Only a fifth of the soil is under cultivation, the greater part of the country being mountainous and rocky. Farming is confined to the fertile valleys and plains, sometimes with the aid of irrigation. Two crops a year are usually grown. Important ones include fruits and nuts, castor beans, cereals, madder, tobacco, cotton and vegetables. Wheat is the staple food. The fat-tailed indigenous sheep is the principal source of meat and wearing apparel.

Important manufactures include silk, felt, sheepskin coats, soap, carpets and boots. Factories have been erected by government monopolies to produce skins, sugar, textiles, vehicles, and power.

Among the leading exports are karakul skins (mostly to the U.S.), cotton, wool, rugs, carpets, spices and dried fruits.

Most of the trade normally is carried on

through Pakistan; wool is exported to the U.S.S.R. in return for consumers' goods. Exports in 1949–50 were placed at 717,000,000 afghanis and imports at 779,000,000 afghanis.

Afghanistan has no railways or navigable streams. Camels and pack horses are still used by the natives, but motor transport is of increasing importance. The principal trade routes lead south through the Khyber and Khojak Passes to Pakistan, and north to the Uzbek and Turkmen Soviet Socialist Republics. There are about 6,000 miles of roads suitable for motor transport.

Both mineral and forest resources are largely unexploited. There are deposits of chromite, coal, copper, gold, iron ore, oil and silver.

NATURAL FEATURES; CLIMATE. Afghanistan, approximately the size of Texas, is split east to west by the Hindu Kush range of the Himalayas, rising in the east to heights of 24,000 feet. Except in the southwest, most of the country is covered by high snow-capped mountains and deep valleys. The few passes are deep and narrow. The climate ranges from extremes of below zero to more than 100° in the north; however, it is not so extreme in the south, although snowfall is heavy all over the country in winter. Rainfall, chiefly in the spring, is relatively light.

Albania (Republic)

(Shqiperia)

Area: 11,100 square miles.
Population (est. 1953): 1,250,000 (Albanian 99.8%; others, .2%).
Density per square mile: 112.6.
Chairman of Presidium: Hadji Leshi.
Premier: Mehmet Shehu
Principal cities (est. 1949): Tirana, 80,000 (capital); Scutari, 30,000 (northern trading center); Koritsa, 28,000 (farming center).
Monetary unit: Lek.
Language: Albanian.
Religions (est.): Moslem, 69%; Orthodox Christian, 21%; Roman Catholic, 10%.

HISTORY. A tiny, backward state approximately the size of Maryland, Albania has acquired considerable importance since World War II because of its close ties with the Soviet Union and its strategic location at the mouth of the Adriatic. After the fall of the Roman Empire, Albania became part of the Byzantine Empire and was successively invaded by Goths, Serbs and Bulgarians. From 1014 to 1204 it was again under Byzantine rule. An alliance of Albanian chieftains (1444–66) under Skanderbeg failed to halt the advance of the Turks, and the country remained under at least nominal Turkish rule for more than four centuries, until it proclaimed its independence on Nov. 28, 1912.

During World War I Albania was variously occupied by Italian, Greek, French, Serb and Austro-Bulgarian forces. On Aug. 2, 1920, Italy recognized Albanian independence and evacuated the country. Ahmed Zogu, Premier in 1922–23, ousted the government of Mgr. Fan Noli in 1924 and became President of a newly constituted republic in 1925. Three years later, after concluding pacts which placed Albania in Italy's sphere of influence, Zogu proclaimed himself King Zog 1.

In 1939, Italy occupied the country in a matter of days. During the Greco-Italian war of 1940–41, the Greek armies pushed the Italians back from the Albanian border and occupied a large part of southern Albania. When Germany attacked Greece and Yugoslavia in April 1941, however, the Greeks withdrew quickly, and the Axis occupation of Albania was complete.

Albania was free of the Axis yoke by the end of 1944, and a leftist provisional government under Colonel General Enver Hoxha was established. That regime was confirmed in power by subsequent elections and full Soviet recognition, although provisional British and U. S. recognition was withdrawn in 1946. Since then, Albania has collaborated closely with the Soviet Union.

GOVERNMENT. Under its 1945 Constitution, Albania has a typical soviet government. Supreme power is vested in the popularly elected National Assembly, to which the Cabinet, headed by the Premier, is responsible. The army, estimated at 60,000 men, has liaison with the U.S.S.R.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is nominally compulsory, but illiteracy is high, especially among women. There is a teachers' college at Tirana.

Albania is still a primitive country where each family tries to provide most of its own needs. Nearly the whole population is engaged in combined farming and stock raising. Only a small portion of the country is fit for tilling. Corn is the chief crop. Others are wheat, tobacco, oats, barley, rye, spelt, olives and citrus fruit. Only a few factories are engaged in processing Albania's agricultural products.

Albania's postwar trade has been limited for the most part to the Soviet bloc. Important exports include crude oil, copper and chrome ore.

Railway mileage totaled only about 81 in 1951, linking Durazzo with Tirana and Elbasan. Good highways were developed by the Italians for strategic purposes, and the Russians continued such construction. The only fully equipped port is Durazzo.

The 1953 budget estimated revenue at 11,350,000,000 leks and expenditure at 11,250,000,000 leks.

Mineral wealth, thought to be considerle, is relatively unexploited. The princil minerals are aluminum and petroleum, ich were developed to some extent durg the Italian occupation of 1939–44. ere are also deposits of lignite, bitumen, romite, copper, asphalt, gypsum and iron.

ATURAL FEATURES; CLIMATE. Alba-a is a mountainous state, largely over 00 ft. above sea level, with a narrow arshy coastal plain crossed by several ers. The interior mountain plateaus and sins contain the centers of population. The climate is typically Mediterranean, th dry, hot summers and moderate win-s. Inland temperatures are lower than ose on the coast.

Arabia

The Arabian peninsula is at the southst extremity of Asia. Its rich oil deposits d proximity to Palestine gave it special portance after World War II. Once a litical unit, today it consists of the ngdoms of Saudi Arabia and Yemen, the itish colony of Aden and six British protorates.

The peninsula, with an area more than ree times that of Texas, and an extreme ngth of 1,400 miles, is generally a plateau ping gently eastward from a mountain nge that averages 5,000 feet in elevation d runs along its entire west side within n or fifteen miles of the Red Sea. The nge reaches a maximum of 12,336 feet in men to the southwest. Arabia has no ers and no forests and is principally a sert dotted with many oases.

Most of the peninsula, particularly the terior, has a hot desert climate with freent changes in temperature. The highnds of the Yemen and southwestern udi Arabia, however, together with parts Oman, have a temperate climate. Jidda, the Red Sea, has an average daily high mperature of 93° during August. Rainfall almost nonexistent, amounting at Aden less than two inches annually.

Mohammed united all Arabs in the 7th ntury A.D., and his followers, led by the liphs, founded a great empire with its pital at Medina. Later, the caliphate pital was transferred to Damascus and en Baghdad, but Arabia retained its imrtance because of the holy cities of ecca and Medina. In the 16th and 17th nturies, the Turks established at least minal rule over much of Arabia, and in e middle of the 18th century it was diled into separate principalities.

Through agreements with local rulers, e British extended their rule over the uthern and eastern coasts in the 19th ntury. At the same time, the Wahhabis, religious sect advocating strict adherence to Mohammed's teachings, gained control over most of central and eastern Arabia, and their work was the beginning of the present Saudi Arabia.

POLITICAL DIVISIONS OF ARABIA

Name	Area (sq. mi.)	Population (est. 1953)
Aden colony (British)	108	150,000
Aden protectorate*	112,000	800,000
Bahrein Islands (Sultanate)*	213	112,000
Kuwait (Sheikdom)*	9,000	150,000†
Oman and Masqat (Sultanate)*	65,000	550,000
Qatar (Sheikdom)*	4,000	18,000
Saudi Arabia (Kingdom)	597,000	7,000,000†
Trucial Coast (Sheikdoms)*	16,000	80,000
Yemen (Kingdom)	31,000	4,500,000

* British protectorate. † Estimate, 1952.

Aden and Bahrein Islands. See British Commonwealth: Asia

Kuwait (Sheikdom)

Kuwait, on the northwestern shore of the Persian Gulf, is an independent state ruled by Sheik Abdullah as-Salim as-Subah. British protection, first exercised in 1898, has several times prevented it from being absorbed by Saudi Arabia. The territory surrounding Al Kuwait, its port, is largely desert; its trade consists of exchanging Arab goods from the interior for textiles, rice, sugar and other necessities. Kuwait's petroleum reserves, estimated at 9 billion barrels, are under concession to the Kuwait Oil Co. Ltd. (owned jointly by Gulf Oil Corp. and British Petroleum Co. Ltd.), which pays one-half its profits to the Sheik. Production, which began only in 1945, totaled 347,557,492 barrels in 1954. Production is concentrated at the Burgan field, from which petroleum is piped to the new port of Ahmadi for shipment.

South of Kuwait on the Persian Gulf is the Saudi Arabian-Kuwait neutral zone, which under the Treaty of Uqair (1922) belongs in undivided one-half interest to Kuwait and Saudi Arabia. It consists of about 2,000 sq. mi. of uninhabited desert. Oil was discovered in 1953 by American Independent Oil Co. Production totalled 5,991,000 barrels in 1954.

Oman and Masqat (Sultanate)

Occupying the mountainous southeastern part of the peninsula, Oman is nominally an independent state under the rule of Sultan Sayyid Sa'id bin Taimur. It has been under British protection since the 19th century. The state is best known for its date cultivation, and its riding camels are considered the best in the world. Trade is mainly to and from India. The capital is Masqat (population 4,200).

Qatar (Sheikdom)

Qatar occupies the whole of the Qatar peninsula in the Persian Gulf. It is ruled, under British protection, by Sheik Ali bin Abdullah al-Thani. The whole area is claimed by Saudi Arabia. Oil deposits are being exploited by a subsidiary of the Iraq Petroleum Co.; output in 1954 was about 36,500,000 barrels.

Saudi Arabia. See Saudi Arabia.

Trucial Coast (Sheikdoms)

This area, extending along part of the Gulf of Oman and the southern coast of the Persian Gulf, is ruled by 7 semi-independent sheiks. Treaties signed with Britain in 1853 and 1892 provided that the sheiks should not cede or sell any part of their land to any other power.

Yemen. See Yemen.

Argentina (Republic)

(República Argentina)

Area: 1,079,965 square miles.
Population (est. 1955): 18,919,000 (approximately 97% of European descent, chiefly Spanish and Italian; 3% Indian and other).
Density per square mile: 17.5.
President: Juan D. Perón.
Principal cities (est. 1955): Buenos Aires, 3,555,000 (capital and chief port); (census 1947) Rosario, 464,688 (flour milling); Córdoba, 351,644 (northwest farming center); Avellaneda, 279,572 (industrial suburb of Buenos Aires); Eva Perón (formerly La Plata), 271,738 (seaport, meat packing); Lanús, 242,760 (suburb of Buenos Aires).
Monetary unit: Peso.
Languages: Spanish (official), Italian.
Religion: Roman Catholic (state-supported).

HISTORY. Discovered in 1516 by Juan Díaz de Solís, Argentina developed slowly under Spanish colonial rule. Buenos Aires was settled permanently in 1580 and became a prosperous city; the cattle industry of the Argentine pampas was thriving as early as 1600.

Invading British forces were expelled in 1806–07, and when Napoleon conquered Spain, the Argentinians set up their own government in the name of the Spanish King in 1810. On July 9, 1816, independence was formally declared. Internal dissension, particularly between Buenos Aires and the provinces, was put down under the dictator Juan Manuel de Rosas, who brought about unification from 1829 to 1852. Rosas was overthrown by Justo José de Urquiza, who became the first President under the 1853 Constitution, modeled after that of the U. S.

President Hipólito Irigoyen (1916–22) refused to abandon Argentinian neutrality in World War I. Re-elected in 1928, Irigoyen, a radical, was ousted two years later by a conservative revolution led by General José Uriburu. The latter's successor General Agustín Justo (1932–38) followed a moderate policy and undertook a large public works program.

Argentina proclaimed neutrality at the outbreak of World War II, but in general co-operated in hemispheric defense programs. In the closing months of the war, the nation declared war on the Axis (March 27, 1945) and signed the Act of Chapultepec the following April 4. Diplomatic recognition and admission to the U. N. followed. Juan D. Perón, then an army colonel, emerged as strongman and won the 1946 presidential elections. Congress became completely controlled by Perón supporters. Perón was re-elected Nov. 11, 1951, in an election in which the opposition was denied freedom of speech, press and assembly.

Worsening relations between Perón and the Catholic Church came to a head June 16, 1955, in a brief and unsuccessful navy-marine revolt. A day before, Perón had deported two Catholic prelates, and the Vatican retaliated by excommunicating the Argentine head of state.

GOVERNMENT; DEFENSE. Argentina is a federal union of seventeen provinces and seven territories. Under the Constitution promulgated in 1949, a President and Vice President are elected every six years by direct popular vote. The President appoints his Cabinet. The Vice President presides over the Senate but has no other powers. Both executives are eligible for re-election. The National Congress has two houses—a 30-member Senate which is popularly elected for six-year terms, and a Chamber of Deputies (one for each 100,000 electors) popularly elected for six years, one-half the membership of each house being renewed every three years.

Each province has its own constitution, elected governor, legislature and judiciary, but the President may in a crisis take over the local government.

Under legislation enacted Nov. 29, 1949, all men and women 12 to 50 are subject to military service at the President's discretion. Service from 20 to 22 is compulsory. Active strength of the army is about 100,000 officers and men.

The air force has about 150 combat planes. The navy in 1954 included two modernized battleships, five light cruisers and 15 fleet destroyers.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Argentina's estimated illiteracy rate of 7–10 per cent is the lowest in all Latin America. Education is free, secular and compulsory between six and fourteen. In 1951 there were 15,874 prima

schools with 2,446,138 pupils, 3,264 public and private secondary, normal and special schools with 521,132 students and 6 national universities with 90,201 students.

Agriculture. A farming and stock-raising nation, Argentina devotes some 40 per cent of its area to pasture and 10 per cent to cultivation. Cotton, sugar cane and fruits are important, and Argentina is the world's largest producer of yerba maté (Paraguay tea), the national beverage. The 1954 wine production was about 329,000,000 gallons (1949–53 average: 294,900,000 gallons).

Estimated crop production in the 1953–54 crop year, in metric tons, was as follows: wheat, 6,000,000; rye, 642,800; barley, 829,000; oats, 960,000; maize, 4,800,000; cotton, 600,000 bales (480 lb. each).

Cattle raising predominates on the pampas, especially in Buenos Aires province. Sheep raising is more important in Patagonia. In 1952 there were 45,262,995 cattle, 54,683,731 sheep, 3,989,188 pigs, (1947) 7,237,663 horses. Wool production in 1954 was 397,000,000 lb., greasy basis.

Manufacturing. Industrial expansion was accelerated during World War II by the shortage of imports, but industry is still closely allied to agriculture. The principal industry is meat refrigeration, followed by flour milling, textiles, sugar refining, dairy products, quebracho extraction and wine.

Trade. Argentina's trade position, favorable in the immediate postwar period, deteriorated as dollar exchange became scarcer. Trade statistics are as follows (in millions of pesos):

	1951	1952	1953
Exports	6,709.2	4,392.0	7,107.0
Imports	10,491.9	8,361.2	5,655.0

Leading exports in 1953 were cereals and linseed (26%), meat (18%), wool (16%) and forest products (6%). Imports included machinery and vehicles (26%), fuel (17%) and foodstuffs (9%). Exports in 1953 went principally to Britain (20%), the U.S. (20%) and Brazil (16%). Principal suppliers were the U.S. (17%), Germany (15%) and Brazil (11%).

Communications. According to *Lloyd's Register,* the merchant fleet on June 30, 1954, was composed of 368 steamers and motorships (100 tons and over) aggregating 1,056,948 gross tons. Chief Argentine ports are Buenos Aires, second only to New York in the western hemisphere, and Eva Perón (La Plata), both on the Plata estuary; and Rosario, a port on the Paraná River.

Railway mileage is about 27,000, nearly all of which radiates outward from Buenos Aires. With the purchase in 1947–48 of the British- and French-owned railways, the system became government-owned. Highway mileage is upwards of 300,000, largely unimproved. Telephones in Jan. 1952 totaled 852,327; broadcasting stations (1951) 58; radio sets, 2,200,000. The air transportation system is government-owned; domestic air routes extend as far south as Tierra del Fuego. Direct connections with the rest of the world are maintained by international airlines.

FINANCE. Ordinary receipts and expenditures of the national administration are as follows (in millions of pesos):

	1952	1953	1954*
Revenue	9,436.6†	9,250.4†	8,354.5
Expenditure	9,364.5	9,203.3	8,321.1

* Budget estimate. † Including proceeds of loans.

Budget estimates excluded expenditures for public works (1,110,000,000 pesos in 1954), to be covered by borrowing, and two self-balancing accounts—autonomous institutions (3,657,600,000 pesos) and special accounts (2,703,000,000 pesos). The net national debt on Dec. 31, 1953, was 34,161,700,000 pesos.

NATURAL FEATURES AND RESOURCES. Second in South America to Brazil in size and population, Argentina is about 2,070 miles long and 860 miles wide at the maximum. In general, it is a plain, rising from the Atlantic to the Chilean border and the towering Andes peaks, including Aconcagua, 22,835 feet, the highest peak in the world outside Asia. The northern area of the Argentine plain is the swampy and partly wooded Gran Chaco. South of that to the Río Negro are the rolling, fertile pampas, rich for agriculture and grazing, and supporting most of Argentina's population. Next southward is Patagonia a region of cool, arid steppes with some wooded and fertile sections. The eastern part of Tierra del Fuego, the island southern tip of South America, belongs to Argentina.

The three great rivers which make up the Plata system—the Paraná, Paraguay and Uruguay—are important commercial arteries in northern Argentina. Rosario and Santa Fé, 260 and 360 miles respectively above Buenos Aires on the Paraná, are accessible to ocean vessels.

Minerals. Argentina must import most of nearly every mineral it uses. Oil is produced in Patagonia (1954: 29,300,000 barrels), and there is small mining of tungsten, lead, gold, zinc, tin, silver and beryllium. The government announced discovery of uranium deposits in Feb., 1947. Coal imports in 1953 amounted to 1,183,920 metric tons.

Forests. The Gran Chaco area is the world's chief source of quebracho extract. Total exports of this tanning agent obtained from quebracho logs in 1953 were 183,124 metric tons, part of which was reexported from Paraguay. Other forest products—hardwoods, dyewoods, lignum vitae, red quebracho, medicinal gums and other

tannins—are consumed locally for the most part.

CLIMATE. Except for the northern Gran Chaco, which has mild winters and torrid summers, Argentina lies in the south temperate zone. The pampas region has an average temperature of 60°, and freezing is rare. Temperature extremes increase progressively southward. All over Argentina, January is the warmest month and June and July are coolest. At Buenos Aires, the mean annual temperature in January-February is about 73°; in June-July, 50°. The heaviest rainfall, over sixty inches a year, hits the Gran Chaco, while on the pampas it ranges from twenty inches in the west to forty in the northeast; at Buenos Aires it is 37.2 inches.

Austria (Republic)
(Österreich)

Area: 32,388 square miles.
Population (est. 1954): 6,969,000 (practically all Austrian).
Density per square mile: 215.2.
President: Dr. Theodor Koerner.
Chancellor: Julius Raab.
Principal cities (census 1951): Vienna, 1,766,102 (capital, industrial center); Graz, 226,453 (industrial center); Linz, 184,685 (Danube port); Salzburg, 102,927 (tourist center); Innsbruck, 95,055 (tourist center).
Monetary unit: Schilling.
Language: German.
Religions (est.): Roman Catholic, 94%; Protestant, 3%; Jewish, 3%.

HISTORY. The history of Austria before World War I was largely that of the Austro-Hungarian Empire and the Hapsburgs. Its origin was in the province of Ostmark, separated from Bavaria and given to Leopold of Babenberg (A.D. 976) by the Holy Roman Emperor, Otto II. It was ruled by the Babenbergs until 1246, and later passed to Ottakar of Bohemia, who lost it to Rudolf of Hapsburg (1276). In 1437, the three kingdoms of Austria, Hungary and Bohemia were united under the rule of Albert V. For three centuries thereafter, despite almost constant warfare, the states remained for the most part under a single crown. The Hapsburgs gradually added to their possessions, until Charles V, during the 16th century, ruled a vast part of Europe. Emperor Francis I laid down the Holy Roman crown in 1806 at the height of the Napoleonic Wars, in which Austria with her allies was finally victorious. Influence in Germany was lost through defeat by Prussia in the Seven Weeks' War (1866). In 1867, the Dual Monarchy of Austria and Hungary was established, united in the person of the sovereign, Franz Josef I, who ruled until 1916.

Following the defeat of the Central Powers in World War I, the republic of Austria was established in Nov., 1918. It was confined to its present borders by the Treaties of St. Germain (1919) and Trianon (1920). The years immediately following the war were a period of privation, dissension and riots, with Austrian currency becoming worthless and the nation bankrupt. Establishment of a semi-dictatorship by Engelbert Dollfuss, who had become Chancellor in 1932, was followed by an unsuccessful Socialist revolt (Feb., 1934) and an attempted Nazi coup d'état which failed, although Dollfuss was killed. He was succeeded by Kurt von Schuschnigg, whose futile efforts to maintain Austria's independence ended (March 12, 1938) with the bloodless occupation of Austria by Germany. Hitler proclaimed the *Anschluss* of Germany and Austria the next day.

Following the liberation of Vienna by the Red Army (April 13, 1945), Dr. Karl Renner, veteran Socialist, formed a provisional government. Elections held Nov. 25, 1945, resulted in victory for the People's Party, whose leader, Leopold Figl, became Chancellor. Dr. Renner was elected President of the Second Austrian Republic (Dec. 20, 1945). He died Dec. 31, 1950; Dr. Theodor Koerner, also a Socialist, was elected President May 27, 1951. Following the Feb. 1953 elections, Julius Raab of the People's Party formed a new coalition Cabinet on Apr. 2.

After World War II, Austria within its 1937 frontiers was divided into 4 national zones, as was the city of Vienna. The 4 occupying powers (the U. S., the U.S.S.R., Britain and France) exercised control through the Allied Council for Austria.

Austria finally regained its independence on May 15, 1955, when a state treaty was signed with the 4 occupying powers. The U.S.S.R. exacted substantial economic concessions as the price for its consent; they included the delivery of 10,000,000 tons of oil over a 10-year period as well as the delivery of $150,000,000 worth of goods over a 6-year period.

NATIONAL GOVERNMENT. Austria is a federal republic comprised of nine provinces (including Vienna), each of which has its own elected assembly for the control of regional affairs. The federal Parliament consists of two houses—the *Bundesrat* whose 50 members are chosen by the provincial assemblies and the *Nationalrat* whose 165 members are chosen by national election. The President of the republic is elected by national popular vote for a term of six years. The government is administered by the Chancellor and his Cabinet. Party standing in the *Nationalrat* after the elections of Feb. 22, 1953, was: People's party 74, Socialist 73, Independent 14, Communist 4.

SOCIAL AND ECONOMIC CONDITIONS. In 1953–54 Austria had 5,301 primary schools with 828,141 pupils, 287 secondary

echnical and teachers' training schools vith 97,677 pupils, and 14 institutions of ligher learning, including 4 universities, vith 20,011 students. Illiteracy is prac-ically unknown.

Agriculture employs more than one-hird of the population but the country s heavily dependent on imported food-tuffs. Mixed farming predominates. Rye nd wheat are the leading cereals with 954 production amounting to 369,973 and 51,832 metric tons, respectively, followed by oats (334,264 tons) and barley (311,537 ons). Potato production was 2,791,627 ons; production of beet sugar, 1,344,625 ons.

Stock raising and dairy farming both n the Alpine pastures and the lowlands of the east are of importance. In 1954 here were 2,304,350 cattle, 2,802,541 hogs nd 277,822 sheep.

Austria is primarily an industrial coun-ry. The metallurgical, engineering, textile nd wood industries are most important. Styria is responsible for almost all the iron nd steel production, which included in 954 1,652,988 metric tons of steel and ,353,554 tons of pig iron. Aluminum pro-duction was 57,238 tons.

Legislation providing for the national-zation of 70 firms, comprising a substan-tial portion of Austrian basic industry, was enacted late in 1946. Most of the industrially important regions are in the east.

Trade statistics are as follows (in mil-lions of schillings):

	1952	1953	1954
Exports	10,797	13,190	15,852
Imports			
Commercial	12,002	12,352	16,478
ERP	1,957	917	510

Leading exports in 1954 were timber (20%), iron and steel and other metals (17%) and machinery and vehicles (11%). The principal sources of imports in 1954 were western Germany (36%), the U. S. (9%), Italy (8%) and Britain (5%). Chief customers were western Germany (24%), Italy (17%) and the U. S., Switzerland and the Netherlands (each 4%).

There were 3,750 miles of railway in 1953, partly electrified. Water traffic is re-stricted for the most part to the Danube River. The major river ports are Linz and, especially, Vienna, which is also an im-portant rail, road and air center.

Recent government financial data are as follows (in millions of schillings):

	1953	1954*	1955*
Revenue	22,731	20,696	22,174
Expenditure	22,624	22,411	24,774

* Budget estimate.

The postwar public debt totaled 10,675,-000,000 schillings on Dec. 31, 1953.

NATURAL FEATURES AND RESOURCES; CLIMATE. Austria covers an area about equal to that of Scotland and includes much of the mountainous territory of the eastern Alps (about 92.3 per cent of the country is classified as mountain-ous). The country contains many snow-fields, glaciers and snow-capped peaks. The principal river, the Danube, enters in the northwest and crosses northern Austria.

Austria possesses valuable mineral re-sources. In Styria lies one of the largest European deposits of iron ore. Copper is mined in Salzburg, Tyrol and lower Aus-tria, and lead and zinc in Carinthia. Other minerals include bauxite, graphite, sulfur and manganese. Fuel resources comprise small coal deposits in lower Austria and large quantities of lignite, found every-where except in Salzburg. Large sup-plies of coal and coke must be imported, but extensive water power resources are available for exploitation. Petroleum fields in the Zistersdorf and Mühlberg areas, both in eastern Austria, produced an estimated 21,650,000 barrels in 1954. Pro-duction of lignite in 1954 was 6,285,061 metric tons; coal, 173,073 tons.

Variety is the keynote of Austria's cli-mate. The mean annual temperature in the north ranges between 45° and 48°, and in no month does the average exceed 68°. Most of the rainfall occurs during summer; it amounts to about 40 in. annually in most of the country. In the Tyrol, mild winters and warm summers are customary.

Belgium (Kingdom)

(Royaume de Belgique—Koninkrijk België)

Area: 11,783 square miles.*
Population (est. Dec. 31, 1954): 8,840,701 (Walloon, Flemish).
Density per square mile: 750.3.
Sovereign: Baudouin I.
Premier: Achille van Acker.
Principal cities (est. 1954, including certain suburbs): Brussels (Bruxelles), 976,-443 (capital); Antwerp (Anvers), 603,625 (port and commercial center); Liège, 439,436 (iron and steel); Ghent (Gand), 229,492 (textiles).
Monetary unit: Belgian franc.
Languages: French, Flemish.
Religion: Predominantly Roman Catholic.

* Including small areas taken over from Germany in 1949.

HISTORY. In 1914 and again in 1940, Belgium was crushed by German armies because its position in the Low Country area made it a highway on the invasion route to France. Highly industrial, a bit larger than Maryland and second most densely populated major European nation, Belgium emerged from World War II in fair economic condition but, politically, the country suffered crisis after crisis in

the struggle between conservatives and elements of the left, especially over the return of King Leopold III to the throne. Leopold returned to Belgium on July 22, 1950, but violent Socialist-led rioting forced him to agree to turn over his powers to his son, Baudouin. He formally abdicated July 16, 1951, and his son (born Sept. 7, 1930) became king as Baudouin I.

Perhaps the earliest mention of the Belgians in history was in 57–50 B.C., when they were conquered by Julius Caesar. In the Middle Ages the Belgian towns became wealthy and virtually autonomous as great textile centers. Belgium became part of Burgundy in 1385 and, later, part of the Spanish domains of Charles V. By the Treaty of Utrecht, in 1713, Belgium went to Austria, though retaining its autonomy, and from 1792 to 1815 it held a similar status under France. United with the Kingdom of the Netherlands by the Congress of Vienna in 1815, the Belgians revolted and proclaimed independence on Oct. 4, 1830, choosing as their sovereign Leopold of Saxe-Coburg. Taking the title of King Leopold I, he ruled 1831–65.

Belgium progressed peaceably under Leopold I and his son, Leopold II, who reigned from 1865 to 1909, and was succeeded by his nephew, Albert I (1909–34).

Despite heroic Belgian resistance under the personal leadership of Albert, the country was overrun by the Germans in 1914 and occupied throughout World War I. The treaty of 1919 gave Belgium the regions of Moresnet, Eupen and Malmédy, and a mandate over Ruanda-Urundi.

As World War II approached, Belgium built a strong series of fortifications, especially along the Albert Canal. But these defenses were no great obstacle to the Germans, who invaded the country for the second time in a generation on May 10, 1940.

King Leopold III, who had succeeded his father upon the latter's death in a mountain-climbing accident in 1934, ordered the Belgians to surrender to the Nazis and was taken prisoner on May 28, 1940—eighteen days after the first German attack. The Cabinet of Hubert Pierlot escaped from the country and set up a government-in-exile in London. When that government returned to Belgium on Sept. 7, 1944, King Leopold's brother, Prince Charles, was elected regent (Leopold was still a prisoner). In elections held June 4, 1950, the Christian Socialists won control of the Chamber of Deputies; succeeding Christian Socialist Cabinets were headed by Jean Duvieusart (June 8), Joseph Pholien (Aug. 15) and Jean van Houtte (Jan. 15, 1952). The Christian Socialists lost their majority in the April 1954 parliamentary elections, and Socialist Achille van Acker formed a Socialist-Liberal Cabinet on Apr. 22, 1954.

On March 17, 1948, Belgium signed a 50-year defense treaty with Britain, France, Luxemburg and the Netherlands, and in April, 1949, the nation joined the North Atlantic alliance.

GOVERNMENT AND DEFENSE. Under the 1831 Constitution, Belgium is a constitutional monarchy. The ministers who constitute the Cabinet must have the confidence of Parliament, which consists of a 212-member Chamber of Deputies popularly elected and a Senate of varying membership, elected both directly and indirectly. All members serve for four years unless one or both houses are dissolved by the King, in which case new elections must be held in forty days. Belgium's nine provinces and 2,666 communes have Crown-appointed officials but retain considerable autonomy with locally elected councils.

The election of Apr. 11, 1954, returned 95 Christian Socialists (as against 108 in the June 1950 election), 86 Socialists (77), 25 Liberals (20), 4 Communists (7) and 2 others to the Chamber of Deputies.

The authorized strength of the army in 1951 was 150,000, but the term of compulsory service was reduced in 1952. The air force has about 350 combat planes. The navy, abolished in 1928, was reformed after World War II and in 1954 had 1 frigate, 6 ocean minesweepers, 1 depot ship, 1 auxiliary transport and various other minor craft.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Education, free and universal for children from six to fourteen, is under state control in three divisions: primary, intermediate and higher. Primary schools (Dec. 1951) numbered 8,755 with 784,398 pupils; state secondary schools, lower grade, 121 with 60,089 pupils, higher grade, 159 with 51,294 pupils. There are four universities: official, Ghent and Liège; unofficial (private), Brussels and Louvain with a total of 17,299 students in 1952–53. There are also private schools, many under religious auspices. The rate of illiteracy in 1947 (7 years of age and over) was 3%. *Agriculture.* About 60 per cent of the total area is under cultivation, and one-half the farmed area is devoted to forage crops. Estimated production of principal crops in 1954, in metric tons, was as follows: wheat, 562,437; oats, 443,567; barley, 242,183; rye, 228,265; sugar beets, 2,118,646; potatoes, 2,182,383. Other crops are fodder beets, flax and fruit. The pastoral industry, especially dairy farming, flourishes. On Jan. 1, 1955, Belgium had 2,207,114 cattle, 1,239,629 hogs and 37,533 sheep.

Manufacturing. Belgium is one of the most highly industrialized nations in Europe, largely because of vast, readily accessible coal reserves. Steel production totaled 5,005,000 metric tons in 1954; pig iron, 4,620,000 tons.

The metallurgical, textile and building ıdustries are important. Associated with on and steel is a considerable engineer-g industry, shipbuilding in Antwerp, and achinery and railway stock in Brussels. he centuries-old textile industry produces nen (Courtral); cotton (the southeast); nd synthetic fibers. Antwerp, using the ıtput of mines in the Congo and Angola, vals Amsterdam in diamond cutting.

Foreign trade is especially vital to the elgian economy. The Belgian-Dutch-Luxnburg customs union (Benelux), estabshed on Jan. 1, 1948, is one of the five reat trading areas in the world. Trade Belgium and Luxemburg (in billions of ancs) is as follows:

	1952	1953	1954*
xports	122.6	113.0	115.2
nports	123.0	121.1	127.5

* Provisional.

Chief customers in 1954 were the Nethernds (21%), western Germany (10%), rance (10%), the U. S. (8%), and Britain %). Leading sources of imports were the etherlands (14%), western Germany 4%), France (12%), the U. S. (10%) nd Britain (8%). Chief exports were iron nd steel and products (24%), thread and bric (8%), coal, coke and petroleum nd products (7%) and copper and prodcts (5%).

ommunications. Inland transportation cilities are highly developed. Raillad mileage is 3,100. Navigable waterways otal 998 mi., including the well-developed anal system. Before World War II, Belium had the second largest river fleet on he Rhine. Highway mileage in 1953 totaled pproximately 40,000. The merchant fleet n June 30, 1954, totaled 204 ships (100 ons and over) aggregating 497,998 gross ons, according to *Lloyd's Register*. Sabena, he government-controlled airline, flew 4,459,348 kilometers and carried 329,399 assengers.

inance. Recent data are as follows (in illions of francs):

	1953	1954*	1955*
evenue	95.0	80.9	81.7
xpenditure	94.4	96.7	99.0

* Budget estimate.

The national debt, consolidated, short nd middle term and at sight, totaled 8,583,277,608 fr. on Dec. 31, 1954.

ATURAL FEATURES AND RESOURCES; LIMATE. The northern third of Belgium a plain extending eastward from the oast of the North Sea. North of the Samre-Meuse Rivers is a low plateau, varying rom 250 to more than 600 feet in height, nd to the south lies the Ardennes plateau, sing to a maximum of about 2,300 feet. he shallowness of the North Sea off Belium precludes the development of good arbors; some of the port advantages of Antwerp, on the Schelde River, are offset by the fact that the approaches to it are through Dutch territory.

The principal mineral is coal; production in 1954 was 29,248,000 metric tons. The Ardennes coalfield, now nearly exhausted, extends southward into France. The Campine field lies in the northeast. Iron ore, lead and zinc also are mined, principally in the Ardennes.

Forests cover about 20 per cent of Belgium, but their products are relatively unimportant. Fishing is vital in the economy.

The climate is temperate. Ostend, on the sea, has an average annual temperature of 49° and annual rainfall of 27.5 inches, about like that of Chicago. Baraque Michel, in the Ardennes heights, has an average temperature of 43°, rainfall of 59.5 inches, and considerable snow in the winter.

BELGIAN COLONIAL EMPIRE

Country	Area (sq. mi.)	Native pop. (est. Dec. 1953)
Belgian Congo (colony)	904,991	12,026,159
Ruanda-Urundi (U. N. trust territory)	20,196	4,110,932

BELGIAN CONGO—Status: Colony.
Capital: Léopoldville (population Dec. 31, 1953: 283,859; Europeans, 15,407).
Governor General: Léo Pétillon.
Foreign trade (1954)*: exports, 20,435,125,000 fr. (50% to Belgium, 16% to the U. S.); imports, 18,492,606,000 fr. (36% from Belgium, 19% from the U. S.). Chief exports: copper (33%), coffee (9%), cotton.
Agricultural exports (1954 in metric tons)*: cotton, 42,239; coffee, 34,394.
Mineral production (1953, in metric tons): copper (smelter), 214,148; tin (ingots), 2,759; cassiterite, 16,317; diamonds (mainly industrial), 12,580,270 carats; gold (refined), 371,000 oz.; uranium.
Forest exports (1954 in metric tons)*: palm oil, 140,186; palm kernels, 71,808; gum copal, 7,241; rubber, 22,547.
*** Including Ruanda-Urundi.**

The mineral-rich Belgian Congo, in central Africa, with a narrow outlet to the Atlantic through the northwestern tip of Portuguese Angola, was acquired Nov. 15, 1908, by the Belgian state from the Belgian King, Leopold II. The latter had backed exploration of the area by the English explorer, H. M. Stanley, and in 1885 had been recognized by the great powers as personal sovereign and proprietor of the Congo Free State, as it was then called. The area is now administered by a Governor General responsible to the Cabinet minister for the colonies. The Governor General has unrestricted executive and legislative powers, and the colony has no representative institutions of its own. During World War II it furnished vital war materials to the Allies. The European population on Dec. 31, 1953, was 86,688, of whom 67,827 were Belgians.

RUANDA-URUNDI—Status: U. N. trust territory, united administratively with the Belgian Congo.
Capital: Usumbura.
Governor General: Léo Pétillon.
Principal products: tin, coffee, gold, cotton, hides.

Ruanda-Urundi, in east Africa, was assigned to Belgium as a mandate by the League of Nations at the end of World War I, before which it was a portion of German East Africa. It is administered under the direction of the Governor General of the Belgian Congo by a Vice Governor General. The area, placed under U. N. trusteeship in Dec., 1946, is largely mountainous, with livestock grazing the principal native activity.

Bhutan (Kingdom)

Area: approx. 18,000 square miles.
Population (est. 1954): 300,000 (mostly Bhotiya).
Density per square mile: 16.7.
Ruler: Maharaja Jigme Dorji Wangchuk.
Capital: Punakha.
Monetary unit: Indian rupee.
Language: Tibetan dialect.
Religion: Buddhism.

HISTORY. Bhutan is a semi-independent state lying on the southeast slope of the Himalayas, bordered on the north and east by Tibet and on the south and west by the Republic of India. The area is said to have been invaded and settled by Tibetan troops in the 9th century A.D. After almost a century of conflict between the Bhutanese and the British in India, British troops invaded the country in 1865 and negotiated an agreement under which Britain undertook to pay an annual allowance to Bhutan on condition of good behavior. A treaty signed with India in Aug., 1949, increased this subsidy and placed Bhutan's foreign affairs under Indian control.

Until 1907 Bhutan's government was under the dual control of the clergy and laity, but the country is now ruled by a hereditary Maharaja.

The dominant people are the Bhotiyas, who are of Tibetan origin, speak a Tibetan dialect, and profess the same form of Buddhism as is prevalent in Tibet.

ECONOMIC CONDITIONS. The chief crops are rice, corn and millet; the fields, laid out on hillside terraces, are watered by an ingenious system of irrigation. Bhutan is famous for its small though sturdy mountain ponies. The chief industries are metal work, cloth weaving and fine basket and mat work. Trade is insignificant, and much of it is conducted by barter.

NATURAL FEATURES; CLIMATE. The whole of Bhutan presents a succession of lofty and rugged mountains running generally from north to south and separated by deep valleys. Mountains in the north reach a height of 24,000 feet. The climate varies according to the topography. In the extreme south, rainfall amounts to as much as 200–300 inches annually.

Bolivia (Republic)
(República Boliviana)

Area: 416,040 square miles.
Population (estimated 1954): 3,162,000 (1944: 52% Indian, 28% Mestizo, 13% white, .2% Negro, 6.8% unspecified).
Density per square mile: 7.6.
President: Víctor Paz Estenssoro.
Principal cities (census 1950): La Paz, 321,063 (de facto capital); Cochabamba, 80,795 (commercial center); Oruro, 62,975 (tin mines); Potosí, 45,758 (mining); Sucre, 40,128 (legal capital).
Monetary unit: Boliviano.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Famous since Spanish colonial days for its mineral wealth, modern Bolivia was once a part of the ancient Incan Empire. After the Spaniards had defeated the Incas during the first part of the 16th century, Bolivia was subjected to the Spanish Viceroyalty of Peru, and its predominantly Indian population was reduced to slavery. During the successive South American revolts against Spain in the early 19th century, Upper Peru (as Bolivia was then called) was a vast battlefield contested by Spanish and patriot troops. The country finally won its independence in 1825; the new republic was named after Simón Bolívar, South America's famed liberator.

Bolivia's political history since independence has been extremely stormy. Since 1825 it has had more than sixty revolutions, seventy presidents and eleven constitutions. No elected president has ever served out his term.

Harassed by internal strife, Bolivia lost great slices of territory to three neighbor nations. Several thousand square miles and its outlet to the Pacific were taken by Chile after a disastrous war in 1879–83. In 1903 a piece of Bolivia's Acre province rich in rubber, was ceded to Brazil. And in 1938, after a war with Paraguay, Bolivia gave up claim to nearly 100,000 square miles of the Gran Chaco.

Recent years have been typical of Bolivia's turbulent political history, with several illegal seizures of power culminating in a leftist revolution on July 21, 1946. Elections held May 6, 1951, were indecisive although an exiled leftist, Víctor Paz Estenssoro, obtained a near majority. A military junta which took over on May 16, 1951, was overthrown on April 11, 1952, and Paz Estenssoro became President on April 16. The three major tin mining companies were nationalized in Oct. 1952.

OVERNMENT. Under the 1938 constitu-on, Bolivia is a republic, electing by pop-ar vote a President every four years, a -member Senate every six years, and a 1-member Chamber of Deputies every ur years. The President appoints the 10 embers of his Cabinet. The Indian ma-rity was virtually disfranchised until ly 1952, when the franchise was con-rred on all those who had reached the e of 20, whether literate or illiterate.

Military service is compulsory, with a o-year training period beginning at neteen and service on reserve until fifty. ne army is fixed by law at 15,000, and ere are about 12,000 federal police.

OCIAL AND ECONOMIC CONDITIONS. olivia has an illiteracy rate estimated in 50 at over 80 per cent, highest in Latin nerica. A contributing factor is the high oportion of pure Indian population. In 50, enrollment at 1,562 primary schools as 141,831, and at 104 secondary schools, ,029. There are five universities.

The 5,000,000 acres under cultivation oduce wheat, rice, sugar, potatoes, cacao, rley, maize, coca (source of cocaine), to-acco and cotton. Production of such basic odstuffs as wheat and rice, however, is sufficient for domestic needs, and con-derable quantities must be imported. ttle are raised in the more temperate gions of the east and south, sheep in the partments of La Paz and Cochabamba, d llamas, alpacas and vicuñas, impor-nt sources of hides, wool and meat, are ised on the plateaus by Indians whose onomy is largely dependent upon them. ne fur-bearing chinchilla, a native of the lder plateau regions, is also bred.

Tin and other minerals comprise almost e whole of Bolivia's exports. Since the untry is landlocked, foreign trade must ss through free ports in Chile and river rts on the Amazon. Trade statistics for ree years follow (in millions of U. S. llars):

	1952*	1953*	1954
xports	141.8	124.5	94.3
nports	92.6	68.0	65.5

* Partially estimated.

Chief exports in 1954 were tin (64%) d tungsten (15%). Leading suppliers in 53 were the U. S. (32%), Argentina 4%) and Peru (14%); leading customers, e U. S. (55%) and Britain (41%).

Railway mileage (1951) totaled 1,491, most entirely in western Bolivia; the incipal lines connect La Paz with the ilean ports of Arica and Antofagasta. nproved roads totaled 2,815 mi. in 1950; ere were about 20,000 mi. of other roads. rlines play an important role in Bolivian ansportation. In the lowlands, thousands miles of navigable streams are the chief eans of transportation.

NATURAL FEATURES AND RESOURCES; CLIMATE. Landlocked Bolivia is a low alluvial plain throughout 60 per cent of its area toward the east, drained by the Amazon and Plata river systems. The western part, enclosed by two chains of the Andes, is a great plateau—the Altiplano—measuring 500 by 80 miles at an average altitude of 12,000 feet. More than 80 per cent of the population lives on the plateau, which also contains La Paz, the highest capital city in the world. Lake Titicaca, half the size of Lake Ontario, is one of the highest large lakes in the world, at an altitude of 12,507 feet. Islands in the lake hold ruins of the ancient Incan civilization.

Mining is the backbone of the economy. Tin, accounting normally for 70 per cent of Bolivian exports, is by far the most important mineral, most of it coming from the plateau regions of Potosí and Oruro. During World War II, Bolivia was the world's largest tin producer.

Mineral production in 1954 was: tin, 28,799 long tons; silver, 5,044,000 ounces; copper, 4,036 short tons; zinc, 22,485 tons. Antimony, gold, lead, manganese ore, tungsten concentrates, and mercury are also produced; and uranium deposits have been reported. Southern Bolivia is rich in oil, as yet relatively unexploited. Production in 1953 amounted to about 615,000 barrels.

From its lowland tropical forests, Bolivia gets rubber, quinine bark, almonds and brazil nuts, dyewoods, mahogany, quebracho and other hardwoods. Rubber exports in 1952 were about 1,100 short tons.

The climate varies from the humid heat of the equatorial lowlands in the east to the arctic cold of the Andean peaks. In the lowlands, the average temperature is about 77°, with no great departures; rainfall is fairly heavy throughout the year (30–50 inches or more). At higher elevations in the west (to 11,000 ft.) the climate is temperate, with occasional winter frost. In the great central plateau, the weather is always cool. In La Paz it averages about 50.4; rainfall there averages about 23 inches annually.

Brazil (Republic)

(Estados Unidos do Brasil)

Area: 3,291,416 square miles.

Population (est. 1954): 57,226,000 (1950: white, 61.7%; mestizo, 26.5%; Negro, 11.0%; other, 0.8%).

Density per square mile: 17.4.

President: João Café Filho.

Principal cities (est. 1953): Rio de Janeiro, 2,604,018 (capital and chief port); São Paulo, 2,500,000 (coffee and industrial center); Recife (Pernambuco), 560,000 (seaport); Salvador (Baía), 460,000 (seaport); Pôrto Alegre, 440,000 (seaport); Belo Hori-

zonte, 430,000 (mining); Fortaleza (Ceará), 300,000 (seaport).
Monetary unit: Cruzeiro.
Language: Portuguese.
Religion: Roman Catholic, 95%.

HISTORY. Brazil, the only Latin American nation deriving its culture and language from Portugal, is by far the largest country in South America, covering nearly half the continent. In the Western Hemisphere it is second to Canada. In the world, it ranks after the U.S.S.R., China and Canada.

Brazil was discovered in 1500 by the Portuguese admiral, Pedro Alvares Cabral. Portuguese colonization efforts began in 1532 and Brazil became a royal colony seventeen years later. The later attempts of France and Holland to colonize Brazil were defeated by the Portuguese.

During the Napoleonic wars, the Prince Regent of Portugal (later King John VI) fled his country in advance of the French armies, and set up his royal court at Rio de Janeiro in 1808. John was drawn home by a revolution in 1820 and the Brazilians, after holding the seat of Portuguese government, rebelled at resuming colonial status and declared their independence in 1822 under Pedro, son of John VI. Harassed by trouble with his parliament, Pedro I abdicated in 1831 in favor of his five-year-old son, who became Emperor in 1840 as Pedro II. He was a popular monarch.

Despite his good works, however, Pedro II was forced to abdicate in 1889 following a military revolt, after which a republic was set up. Until 1893 Brazil was under two military dictators, Marshal Deodoro da Fonseca and Marshal Floriano Peixoto. After a revolt against the latter in 1893, Brazil returned gradually to stability under a succession of civilian Presidents.

The President during World War I, Wenceslau Braz, co-operated with the Allies and declared war on Germany Oct. 26, 1917. Pres. Washington Luiz Pereira da Souza, 1926–30, had to cope with the world depression and was overthrown by a revolutionary group under Getúlio Vargas, who took over as provisional President.

Vargas' new Constitution in 1934 sharply curtailed state's rights and emphasized a nationalistic policy. In 1937 Vargas seized absolute power, setting up another Constitution which extended his term of office indefinitely. In World War II, Brazil co-operated well with the United Nations. Allied air bases were set up in Brazil, Brazilian naval forces patrolled the South Atlantic, and a Brazilian expeditionary force fought in Italy after the nation's declaration of war against the Axis in Aug. 1942.

National fear that Vargas would never fulfill his promise of free elections led to his overthrow on Oct. 29, 1945, and the transfer of his powers to Chief Justice Jose Linhares. In the subsequent elections, on Dec. 2, 1945, victory went to the Varga candidate—Gen. Eurico Gaspar Dutra, inaugurated as President on Jan. 31, 1946.

Vargas returned to the political arena in 1950 and was elected President Oct. 3 as candidate of the left-of-center Labo party, taking office Jan. 31, 1951. He committed suicide Aug. 24, 1954, and wa succeeded by João Café Filho.

GOVERNMENT AND DEFENSE. Under the Constitution of 1946, Brazil is a union o twenty states, five territories and one fed eral district. The President is popularly elected for a five-year term and may no succeed himself. The national Congress i composed of two houses—the Senate whose members serve for eight-year terms and the Chamber of Deputies, elected fo four-year terms. Members of Congress ar elected by equal, direct, compulsory and secret suffrage under a system of propor tional representation.

Defense. Military service is compulsory beginning at twenty-one, with an initia training period of one year and service on reserve until forty-five.

The army received a considerabl amount of U. S. lend-lease military good during World War II. The air force, unde a separate Ministry of Aviation since 1941 expanded during the war and took an ac tive part in the Italian campaign.

The navy in Dec. 1954 had in activ service 2 cruisers, 9 fleet destroyers, frigates and escort vessels, 3 submarine and other smaller craft.

SOCIAL AND ECONOMIC CONDITIONS *Education.* Education is free and com pulsory; under the 1946 Constitution it i given in Portuguese only. According to th 1950 census, 51.6% of the population 1 years of age and over could read and writ In 1951 there were 82,678 primary schoo with 5,350,401 pupils, (1949) 1,993 sec ondary schools with 389,762 students an 3,186 technical and commercial schoo with 193,180 students. There are 11 unive sities, of which 3 are private (Catholic 7 state and one federal.

Agriculture. Agriculture is the basis Brazil's economy, but only 4 per cent of i area is under cultivation, the rest bei grazing, forest, or non-productive lan Brazil leads the world in production coffee and castor beans, and ranks seco in cacao. Production and export of bo coffee and cacao are government-co trolled. The most important agricultu products in 1953–54 were coffee, 19,000,0 bags of 132 lb. each; cacao, 122,500 met tons; rice, 3,160,740 tons; wheat, 821,7 tons; tobacco, 119,743 tons; maize, 6,109,7 tons. Other crops include sugar ca sisal, fruit, cotton, bananas and coconu

Livestock is raised nearly everywhere, th the great centers in the central and uthern states. On Dec. 31, 1953, there re 32,721,000 hogs and 16,800,000 sheep d (1952) 55,854,000 cattle.

anufacturing. Manufacturing is still imarily for domestic consumption, but dustrialization is progressing rapidly. The state of São Paulo is by far the ading industrial area. Leading products e foodstuffs, textiles, chemicals and armaceutical products, metallurgical oducts, clothing, leather, glass and por-lain, paper and rubber articles.

Brazil's first steel plant, at Volta Re-nda, began production on June 23, 1946. oduction of pig iron and ferroalloys in 54 was 1,060,000 metric tons; steel, 1,-6,000 tons.

Foreign trade, largely hemispheric, has en retarded by scarcity of dollar ex-ange. Trade statistics for 3 years follow n billions of cruzeiros):

	1952	1953	1954
ports	26.07	32.05	42.97
nports	37.18	25.15	55.24

In 1953, Brazil's chief customers were the S. (48%), Germany (10%), France %) and Britain (5%). Leading suppliers re the U. S. (28%), Argentina (14%) and ance (9%). Chief exports in 1954: cof-e (58%), cotton (15%) and cacao (10%). Major imports include machinery, food-uffs (largely Argentine wheat), vehicles d petroleum products.

mmunications. The coastwise and river eamers are the main links between north d south Brazil, especially within the nazon basin where inland waterways are e only means of land communication. avigable waterways total 26,713 miles. astwise traffic is restricted to Brazilian ips, but the Amazon is open to all ships. cording to *Lloyd's Register,* the mer-ant marine had 411 vessels (100 tons and er) aggregating 898,989 gross tons on ne 30, 1954.

Railway mileage in 1952 was about 23,-0, mostly located south of Recife. Rail-y development has been hampered by tural obstacles, especially by coastal ountains, but extensive government and ivate building is under way. Highways tal 38,000 miles, and common roads out 124,000 miles. Brazil is served by merous domestic and foreign airlines; leage flown by domestic lines in 1953 s 62,800,000; passengers carried were 33,000.

nance. Recent data are as follows (in llions of cruzeiros):

	1953	1954*	1955*
venue	37.1	46.0	53.5
penditure	39.0	45.0	56.5

* Budget estimate.

NATURAL FEATURES AND RESOURCES; CLIMATE. Brazil covers about three-sevenths of South America, extends 2,965 miles north-south, 2,691 miles east-west, and borders every South American state except Chile and Ecuador. Its area would more than blanket that of the U. S.

There are two principal physical divisions of the Brazilian surface. The lowlands are made up of the heavily forested tropical river basin of the Amazon, the world's largest drainage area; and the less heavily forested basin of the Plata to the south. The intermediate highland is a vast plateau, 1,000 to 3,000 feet above sea level, traversed by several low mountain ranges, and extending almost from the seacoast to the Bolivian frontier and south to the plains of Rio Grande do Sul. The Central plateau comprises more than half of the country and, with the narrow coastal plain, supports 90 per cent of the population.

More than a third of Brazil is drained by the Amazon and its more than 200 tributaries. The Amazon is navigable for ocean steamers to Iquitos, Peru, 2,300 miles upstream. Southern Brazil is drained by the Plata system—the Paraguay, Uruguay and Paraná Rivers. The most important stream entirely within Brazil is the São Francisco, navigable for a thousand miles but broken near its mouth by the 260-foot Paulo Affonso Falls, with estimated potential 1,000,000 horsepower.

Mineral Resources. Brazil's vast mineral resources are among her least developed assets. The most important are coal (estimated reserves of 5,000,000,000 tons; estimated 1954 production, 2,030,000 metric tons) and iron ore, found chiefly in Minas Gerais (1953 output, 3,145,000 metric tons). Other important minerals, with estimated 1953 production, are gold, 115,-800 troy ounces; diamonds, 200,000 carats; bauxite, 20,200 metric tons; manganese ore, 166,100 metric tons; tungsten; silver; quartz crystals; uranium; chrome ore; graphite; petroleum and titanium.

Forests and Fisheries. More than half of Brazil's total area is forested, but the extensive resources are relatively undeveloped. The largest single forest commodities are timber, chiefly pine from the southern states, and the wax of the carnauba palm, used for insulation and phonograph records and produced commercially only in Brazil (exports 1953: 7,000 metric tons). Rubber production, mostly in the Amazon basin, was estimated in 1954 at 22,300 metric tons, but it has not developed as extensively as was once expected. Other forest products are Brazil nuts, yerba maté (Paraguay tea), medicinal plants, and vegetable oils. There are vast fishing banks and grounds in the rivers and along the coast, with some 2,500 species of fish.

Climate. Brazil is almost wholly in the torrid zone, but such factors as altitude, prevailing winds, rainfall and distance from the sea combine to vary the climate from tropical to temperate. Manaus on the Amazon has an average temperature of 80.9° and annual rainfall of 71.65 inches. The corresponding figures for Rio de Janeiro are 72.5° and 44 inches. February is usually the warmest month in Rio de Janeiro. In much of the Amazon basin, rainfall averages 80 inches.

BRITISH COMMONWEALTH OF NATIONS

This is a world-wide community of eight independent nations, officially termed The Commonwealth of Nations (the United Kingdom, Australia, Canada, Ceylon, India, New Zealand, Pakistan and the Union of South Africa) and their dependencies or semidependent territories bound together by allegiance to the British crown or by recognition of the British sovereign as head of the Commonwealth and symbol of free and equal association of countries within its framework.

EUROPE

United Kingdom of Great Britain and Northern Ireland

Area: 93,371 square miles (excluding Channel Islands and Isle of Man).
Population (est. Dec. 1954): 50,887,000 (English, Scotch, Welsh, Irish).
Density per square mile: 545.0.
Ruler: Queen Elizabeth II.
Prime Minister: Sir Anthony Eden.
Principal cities (census 1951): London (Greater), 8,346,137 (capital); Birmingham, 1,112,340 (iron and steel); Glasgow, 1,089,555 (seaport, shipbuilding); Liverpool, 789,532 (seaport); Manchester, 703,175 (textiles); Sheffield, 512,834 (steel, cutlery); Leeds, 504,954 (clothing); Edinburgh, 466,770 (capital, Scotland).
Monetary unit: Pound sterling (£).
Languages: English, Welsh, Gaelic.
Religion: Church of England (established church); Church of Wales (disestablished); Church of Scotland (established church—Presbyterian); Church of Ireland (disestablished); Roman Catholic; Methodist; Congregational; Baptist; Jewish.

HISTORY. Roman invasions of the 1st century B.C. brought Britain into contact with the continent. When the Roman legions withdrew in the 4th century A.D., Britain fell easy prey to the invading hordes of Angles, Saxons and Jutes from Scandinavia and the Low Countries. Seven large kingdoms were established, and the original Britons were forced into Wales and Scotland. It was not until the 11th century that the country finally became united under the Danish King Canute. Following the death of Edward the Confessor (1066), a dispute as to the succession arose, and William Duke of Normandy invaded England, defeating the Saxon noble, Harold II, at the Battle of Hastings (1066). The Norman conquest was accompanied by the introduction of Norman law and feudalism, changing the customs of England.

The reign of Henry II (1154–89), first of the Plantagenets, saw an increasing centralization of royal power at the expense of the nobles, but in 1215 John (1199–1216) was forced to sign the Magna Carta, which awarded the people, especially the nobles, certain basic rights. Edward I (1272–1307) continued the conquest of Ireland, reduced Wales to subjection, and made some gains in Scotland. In 1314, however, English forces led by Edward II were ousted from Scotland after the battle of Bannockburn. The late 13th and early 14th centuries saw the development of a separate House of Commons with tax-raising powers.

Edward III's claim to the throne of France led to the Hundred Years' War (1338–1453), which ended with the loss of almost all the large English territory in France. In England the great poverty and discontent caused by the war was intensified by the Black Death, a plague which reduced the population by about one-third. The Wars of the Roses (1455–85), a struggle for the throne between the House of York and the House of Lancaster, were ended by the victory of Henry Tudor (Henry VII) at Bosworth Field (1485).

During the reign of Henry VIII (1509–47), the Church in England asserted its independence from the Roman Catholic Church. Under Edward VI and Mary, the two extremes of religious fanaticism were reached and it remained for Henry's daughter, Elizabeth I (1558–1603), to settle the Church of England on a moderate basis. In 1588 the Spanish Armada, a fleet sent out by Catholic King Philip II of Spain, was defeated by the English and destroyed during a storm. It was during Elizabeth's reign that England became a world power.

Elizabeth's heir was of the house of Stuart—James VI of Scotland—who joined the two crowns as James I (1603–25). The Stuart Kings incurred large debts and were forced either to depend on Parliament for taxes or to raise money by illegal means. In 1642 war broke out between Charles I and a large portion of the Parliament. Charles was defeated and executed in 1649, and the monarchy was then abolished. The Puritan Commonwealth endured for ten

The Commonwealth of Nations

Europe

olitical subdivision	Area (sq. mi.)	Population
ited Kingdom	93,371	50,887,000[4]
annel Islands	75	102,770[1]
e of Man	221	55,213[1]
braltar	2	24,600[3]
lta	122	315,952[4]

Africa

glo-Egyptian Sudan	967,500	8,766,000[3]
sutoland	11,716	585,000[3]
chuanaland	275,000	293,000[3]
mbia	4,074	289,600[3]
ld Coast (including Togoland)	91,843	4,478,000[3]
nya	224,960	5,947,000[4]
uritius and dependencies	807	538,918[4]
geria (including British Cameroons)	372,674	31,500,000[3]
odesia and Nyasaland, Federation of:		
Northern Rhodesia	290,323	2,015,000[3]
Nyasaland	47,949	2,463,785[2]
Southern Rhodesia	150,333	2,259,900[3]
Helena and dependencies	126	5,345[4]
ychelles	156	37,391[4]
erra Leone	27,925	2,000,000[3]
malilland	67,936	640,000[3]
uth-West Africa	317,725	447,000[4]
vaziland	6,705	207,000[3]
nganyika Territory	362,688	8,196,000[4]
anda	93,981	5,425,000[4]
ion of South Africa	472,550	13,393,000[4]
nzibar and Pemba	1,020	274,000[3]

America

hamas	4,404	84,841[3]
rbados	166	222,942[3]
rmudas	19	39,983[3]
itish Guiana	89,480	463,000[3]
itish Honduras	8,598	78,094[4]
nada	3,619,616	15,482,000[5]
lkland Islands and dependencies	4,618	3,697[3]

America—(cont.)

Political subdivision	Area (sq. mi.)	Population
Jamaica and dependencies	4,722	1,517,697[3]
Leeward Islands	423	121,700[3]
Trinidad and Tobago	1,978	678,300[3]
Windward Islands	821	290,000[3]

Asia

Aden colony	80	150,000[3]
Aden protectorate	112,000	800,000[3]
Bahrein Islands	213	112,000[3]
Borneo:		
Colony of North Borneo	29,417	355,000[3]
Brunei	2,226	53,000[3]
Sarawak	50,000	592,000[3]
Ceylon	25,332	8,385,000[4]
Cyprus	3,572	517,000[4]
Hong Kong	391	2,250,000[3]
India, Republic of	1,220,099	372,000,000[3]
Malaya:		
Malayan Federation	50,680	5,888,578[4]
Singapore and dependencies	282	1,167,682[4]
Pakistan	337,524	75,842,165[1]

Oceania

Australia, Commonwealth of	2,974,581	9,149,477[5]
Fiji	7,040	317,000[3]
Gilbert and Ellice Islands	312	38,000[3]
Nauru	8	3,000[1]
New Hebrides	4,633	53,000[2]
New Zealand	103,416	2,130,927[5]
Norfolk Island	13	1,140[0]
Papua-New Guinea	183,540	1,575,000[4]
Solomon Islands	11,458	103,000[3]
Tonga (Friendly Islands)	250	54,342[4]
Western Samoa	1,133	85,416[2]

(Note: Each population figure is followed by superior number denoting the year of estimate or census: [5] for 1955, [4] for 1954, [3] for 1953, [2] for 1952, [1] for 1951, [0] for 1950.)

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ars, but after the death (1658) of Oliver omwell, the Lord Protector, the governnt fell to pieces and Charles II was reed to the throne in 1660. The struggle tween the King and Parliament continued, but Charles II knew when to compromise. His brother James II (1685–88) ssessed none of his ability and was sted by the Revolution of 1688, which nfirmed the predominant position of rliament. James' daughter, Mary, and r husband, William of Orange, now ruled ntly.

The reign of Queen Anne (1702–14) was marked by the Duke of Marlborough's victories over France at Blenheim, Oudenarde and Malplaquet in the War of the Spanish Succession. England and Scotland meanwhile were joined together by the Act of Union (1707). Upon the death of Anne, the distant claims of the elector of Hanover were recognized, and he became King of England as George I.

The 18th century was a period of gradual growth and change. At home the unwillingness of the Hanoverian Kings to rule

resulted in the formation by the King's ministers of a cabinet, headed by a Prime Minister, which directed all public business. Abroad the constant wars with France resulted in expansion of the British Empire all over the globe, particularly in North America and India. This imperial growth was checked by the revolt of the American colonies (1775–81).

The age-long struggle with France broke out again in 1793, and during the lengthy Napoleonic Wars, which ended at Waterloo (1815), England was pitted at one time against almost all of Europe.

The Victorian era, named after Queen Victoria (1837–1901), saw the growth of a democratic system of government which had begun with the Reform Bill of 1832. The two important wars in Victoria's reign were the Crimean War against Russia (1853–56) and the Boer War (1899–1902). The latter was accompanied by enormous extension of England's sway in Africa.

The reign of Edward VII (1901–10) was marked by increasing uneasiness at home and abroad. Within four years after the accession of George V (1910), England entered World War I when Germany invaded Belgium. The nation was led by coalition Cabinets headed first by Herbert Asquith and then (Dec., 1916) by the Welsh statesman, David Lloyd George. The years after the war were marked by labor unrest which culminated in the general strike of 1926. A Labour ministry formed early in 1924 by Ramsay MacDonald fell in October of that year. In 1929 a second Labour government was formed, but the world economic depression forced a change in 1931, and a national government was formed composed chiefly of Conservative members, although MacDonald remained Prime Minister until 1935. King Edward VIII succeeded to the throne in 1936 on his father's death but abdicated eleven months later (in order to marry an American, Wallis Warfield Simpson, whose second divorce was then pending) in favor of his brother, who became King George VI.

The efforts of Prime Minister Neville Chamberlain to meet by peaceful means the rising tide of Nazism in Germany failed with the German invasion of Poland (Sept. 1, 1939), which was followed by England's entry into World War II (Sept. 3, 1939). Serious Allied reverses in the spring of 1940 led to Chamberlain's resignation and the formation of another coalition war Cabinet by Conservative leader Winston Churchill, who led England through most of World War II. Churchill resigned as the coalition leader shortly after V-E Day, but then formed a "caretaker" government which remained in office until after the parliamentary elections of July 5, 1945, in which the Labour party won an overwhelming victory. The government formed by Clement R. Attlee on Jul 26 began a moderate socialistic program.

Internationally, the Attlee governmen continued Britain's close co-operation wit the United States through the North At lantic Treaty and in the Korean war, a the same time solidifying its positio in Western Europe in opposition t the U.S.S.R. The Labour regime, returne to office by a slight majority in the par liamentary elections of Feb. 1950, lost b a narrow margin in the Oct. 1951 election On Oct. 26 Winston Churchill again be came Prime Minister at the head of a Con servative government. George VI died Feb 6, 1952, and was succeeded by his daughte Elizabeth II.

Churchill voluntarily stepped down o April 5, 1955, in favor of Sir Anthon Eden, who led the Conservatives to an other victory in elections May 26, 1955.

AREA AND POPULATION OF MAJOR SUBDIVISIONS*

Subdivision	Area sq. mi.	Population est. Dec. 19
England	50,870	44,370,00
Wales	7,469	
Scotland	29,794	5,128,00
Northern Ireland	5,238	1,389,00

* Not including Channel Islands and Isle of Man.

RULER. Queen Elizabeth II, born Apr 21, 1926, elder daughter of King George V and Queen Elizabeth, succeeded to th throne on the death of her father, Feb. 1952; married Nov. 20, 1947, to Prin Philip, Duke of Edinburgh, born June 1 1921; their children are Prince Charl (heir presumptive), born Nov. 14, 194 and Princess Anne, born Aug. 15, 1950. Th Queen's sister is Princess Margaret Ros born Aug. 21, 1930; her uncles are Prin Edward Albert, Duke of Windsor (former King Edward VIII), born June 23, 189 and Prince Henry William, Duke of Glo cester, born March 31, 1900.

GOVERNMENT & DEFENSE. The Unit Kingdom is a constitutional monarch with a Queen and a Parliament which h two houses: the House of Lords with abo 805 hereditary peers, 26 spiritual peers, Scottish representative peers, a number Irish representative peers (vacancies are longer filled), and a few life peers who h or have held high judicial office; and t House of Commons, numbering since 19 630 members elected by practically u versal suffrage. Supreme legislative po is vested in Parliament, which holds fice for five years unless sooner dissolv The executive power of the Crown is ex cised by the Cabinet, headed by the Pri Minister. The latter, normally the head the party commanding a majority in House of Commons, is appointed by sovereign, with whose consent he in t appoints the rest of the Cabinet.

inisters must be members of one or the ther house of Parliament; they are in-ividually and collectively responsible to ne Crown, the Prime Minister and Parlia-ient. The Cabinet proposes bills and ar-anges the business of Parliament but it epends entirely on the votes of confidence n Commons. The lords cannot hold up money" bills, but they can delay other ills for a period of at least one year.

By the Act of Union (1707) the Scottish arliament was assimilated with that of ngland, and Scotland is now represented n Commons by 71 members. The Secre-ary of State for Scotland, a member of ne Cabinet, is responsible for the ad-inistration of Scottish affairs.

Parliamentary elections held on May 26, 955, returned 345 Conservatives and asso-iates, 277 Labour party, 6 Liberals and 2 ish nationalists. Polling at contested elec-ons was: Conservatives and associates, 3,336,182; Labour, 12,405,130; others, 295,-72 (including Communist, 33,144).

The members of the Cabinet (June 955): Sir Anthony Eden (Prime Minister, irst Lord of the Treasury), Harold Mac-illan (Secretary of State for Foreign ffairs), Marquess of Salisbury (Lord resident of the Council), Viscount Kil-uir (Lord Chancellor), Viscount Woolton Chancellor of the Duchy of Lancaster), arry Crookshank (Lord Privy Seal), Sel-yn Lloyd (Minister of Defense), Earl of ome (Secretary of State for Common-ealth Relations), James Stuart (Secre-ary of State for Scotland), A. T. Lennox-oyd (Secretary of State for the Colonies), wilym Lloyd-George (Secretary of State or the Home Department and Welsh ffairs), Richard A. Butler (Chancellor of he Exchequer), Sir Walter Monckton Minister of Labour and National Service), uncan Sandys (Minister of Housing and ocal Government), Peter Thorneycroft President of the Board of Trade), D. eathcoat Amory (Minister of Agriculture, isheries and Food), Osbert Peake (Min-ter of Pensions and National Insurance), ir David Eccles (Minister of Education).

ocal Government. Both England and Wales re divided into 62 administrative counties, ncluding the county of London, and 83 ounty boroughs. The counties are ad-inistered by the justices and by popu-rly elected county councils. All incor-orated towns are administered by a unicipal corporation consisting of the ayor, aldermen and burgesses. Local gov-rnment in Scotland is comparable to that n England and Wales.

udiciary. The ultimate British court of ppeal is the House of Lords; the final ourt of appeal for certain of the Domin-ns is the Judicial Committee of the rivy Council. Below the House of Lords n the civil side is the High Court of Judicature, divided into two parts, the Court of Appeal, and the High Court of Justice. On the criminal side is the Court of Criminal Appeal, which is the court of last resort barring the rare allowance of an appeal to the Lords. Actually these superior courts hear only a small fraction of the cases, and most of the trials are held in a complicated system of inferior courts, exercising original jurisdiction. The Lord Chancellor, Lord Chief Justice, Lords of Appeal in Ordinary (law members of the House of Lords), and Lord Justices of Appeal are appointed by the Prime Minister.

Defense. Compulsory military service, introduced in May, 1939, is still in effect, and will continue until 1959 under the terms of National Service acts since passed. An act passed in 1950 makes 2 years' national service compulsory for men between 18 and 26. The armed forces are comprised of three separate services—the Army, the Royal Navy and the Royal Air Force. The Prime Minister retains responsibility for defense, but the Minister of Defense has coordinating and executive duties.

Service ministers are no longer Cabinet members but continue to be members of the Defense Committee headed by the Prime Minister with the Minister of Defense as deputy chairman; this committee is responsible to the Cabinet both for the review of current strategy and for coordinating departmental action in preparation for war.

Military-budget estimates for the fiscal years 1954–55 and 1955–56 follow:

	1954–55	1955–56
Navy	£367,000,000	£347,000,000
Army	£561,000,000	£484,000,000
Air	£537,000,000	£540,400,000

The estimated strength of the armed forces at Apr. 1, 1955, was 823,300, including 518,700 regulars, 283,400 national servicemen and 21,200 women; the projected strength at Apr. 1, 1956, was 788,000.

Control of the land forces is exercised by the Army Council, headed by the Secretary of State for War. Its members include the Chief of the Imperial General Staff, the Adjutant General and Quartermaster General.

The Royal Navy is controlled by the Board of Admiralty, headed by the First Lord of the Admiralty, who is responsible to Parliament. Other members include the First Sea Lord and Chief of Naval Staff. In Dec. 1954, the Royal Navy had in active service and in reserve 7 fleet carriers, 8 light aircraft carriers, 2 escort carriers, 5 battleships, 24 cuisers, 82 destroyers, 57 submarines, 2 coast defense ships, 183 frigates and destroyer escorts and many other smaller craft. Several aircraft carriers, cruisers and smaller craft were under construction.

Control of the Royal Air Force is vested in an Air Council analogous to the Army Council and headed by the Secretary of State for Air. The Fleet Air Arm was transferred to the Royal Navy in 1937.

A total of 5,896,000 men served in the armed forces during World War II; there were also 640,000 in the Women's Auxiliary Forces. Units of the navy, army and air force served in Korea.

Research and development in the field of atomic energy and weapons is the responsibility of the Atomic Energy Authority.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* The school system in England and Wales has undergone considerable change since enactment of the Education Act of 1944. This measure makes primary and secondary training available for all children at public expense, with the secondary stage starting at the age of 11. The school-leaving age was raised from 14 to 15 on April 1, 1947. Statistics for the school year 1952–53 are as follows:

England and Wales: primary and secondary schools 28,290, pupils 6,205,988; special schools 680, pupils 54,375. Scotland: primary and secondary schools 3,730, pupils 818,619.

In 1953–54, the 13 English universities and 4 university colleges had 68,657 students, the University of Wales 4,284 and the 4 Scottish universities 14,718.

Agriculture. Agriculture remains one of Britain's chief industries, employing about 1,000,000 persons.

LEADING AGRICULTURAL PRODUCTS

(in thousands)

	1953		1954*	
	Acres	Long tons	Acres	Long tons
Wheat	2,217	2,664	2,457	2,783
Barley	2,226	2,521	2,063	2,244
Oats	2,840	2,821	2,588	2,440
Sugar beets	415	5,275	437	4,521
Potatoes	985	8,260	945	7,325

* Provisional.

Livestock (June 30, 1954) included 10,718,000 cattle, 22,873,000 sheep, 6,251,000 hogs and 83,644,000 poultry. Cattle occupy a predominant position in British agriculture, accounting for about 40 per cent of the total farm output. Production of cheese (1954, including farmhouse) was 87,600 metric tons; butter (including farmhouse), 22,800; (1953, in long tons): beef and veal, 601,100; mutton and lamb, 167,000; bacon and ham (commercial), 243,800; pork (commercial), 241,000; wool (fleece), 30,600.

Industry. The most important British manufacture is heavy goods such as machinery, tools, bridges and locomotives; industry is concentrated in the north and Midlands of England. Sheffield is the center of the steel industry, while the china industry is concentrated in the Midlands. The cotton industry is centered in Lancashire; Liverpool, Manchester, Oldham, Preston and Bolton are the main manufacturing towns. The wool industry, England's oldest large trade, is located just east of the cotton towns, at Leeds, Bradford and Hull in Yorkshire. An important industrial region is the central Lowlands of Scotland, where woolens, silks, linens, cottons, lace, glass, paper, steel and pig iron are produced. Important shipyards are located along the coast. Vessels aggregating 1,400,000 gross tons were completed in 1954; they represented about 27% of the world total. On Mar. 31, 1955, 335 vessels of 2,144,146 gross tons were under construction in the United Kingdom. Steel production in 1954 was 18,520,000 long tons; that of pig iron, 11,883,000 tons. The iron and steel industry passed into public ownership in 1951 but was denationalized in 1953. In 1954, 769,160 cars and 268,700 trucks and other commercial vehicles were produced.

In Apr., 1948, there were 51,050 industrial establishments having more than 10 employees; the total working population on Dec. 31, 1954, was 23,818,000.

Trade. The United Kingdom's economic prosperity is dependent on its foreign trade, and the nation made great efforts after World War II to build up its volume of exports.

OVERSEAS TRADE

(Value in millions of pounds sterling)

	Imports	Exports	Re-exports
1952	3,477.0	2,584.2	143.9
1953	3,343.4	2,582.1	105.5
1954*	3,379.2	2,674.7	100.8
1955†	1,005.2	741.9	31.9

* Provisional. † First three months.

LEADING EXPORTS AND IMPORTS

(in millions of pounds sterling)

	1953	1954*
Exports		
Machinery (nonelectrical)	397.2	407.8
Vehicles and aircraft	290.3	307.5
Chemicals	177.4	203.8
Manufactures of metals	246.1	145.4
Iron and steel	134.9	136.9
Imports		
Meat	266.5	256.3
Beverages and cocoa preparations	154.6	217.2
Fruits and vegetables	173.9	204.1
Wool	245.1	197.1
Cereals and cereal preparations	235.8	175.9

* Provisional.

DISTRIBUTION OF TRADE, 1952–54

(millions of pounds sterling; 1954, provisional)

Chief Destinations of Exports

	1952	1953	1954
Australia	220.9	212.9	277.8
South Africa	144.9	157.9	156.2
United States	146.2	158.8	149.3
Canada	129.7	156.8	131.9
India	112.6	114.5	114.9
Netherlands	70.5	93.8	99.8

Chief Sources of Imports

	1952	1953	1954
United States	314.6	252.7	282.9
Canada	319.7	305.5	272.9
Australia	226.7	294.2	236.8
New Zealand	165.7	169.8	176.9
Kuwait	136.0	129.5	134.8
Denmark	118.1	128.5	124.5

Communications. The merchant marine on June 30, 1954, totaled 6,036 ships (100 tons and over) with a gross tonnage of 19,122,043—about 20% of the world total and second only to the U. S. merchant fleet. Losses during World War II totaled 2,426 vessels of 11,331,933 gross tons.

Nationalization of the railway and canal systems in Great Britain became effective Jan. 1, 1948, and they are now operated by the government's Transport Commission. Railway mileage in the United Kingdom (1950) was 20,469; in 1954, 1,008,600,000 passengers and 284,600,000 long tons of freight were carried. The total length of public highways is 183,477 miles, of which 157,089 are in England and Wales and 26,388 in Scotland. In Nov. 1954, licensed motor vehicles totaled 5,639,000, including 3,059,000 cars and 963,000 commercial trucks. Radio receiving licenses in Mar. 1955 numbered 9,477,000; television sets, 4,504,000.

British air services throughout the world are nationalized under the Minister of Civil Aviation. Service is supplied by two public corporations—British Overseas Airways (BOAC) and British European Airways. In 1954, they flew 58,044,000 air miles and carried 2,437,200 passengers.

Finance. Recent data are as follows (in millions of pounds sterling):

	1953–54	1954–55	1955–56*
Revenue	4,368.1	4,737.9	4,710.1
Expenditure	4,274.5	4,304.7	4,561.9

* Budget estimate.

The net deadweight debt on Mar. 31, 1954, was £26,583,000,000 (1953: £26,024,000,000; 1952: £25,860,000,000; 1951: £25,921,800,000).

ESTIMATED REVENUE AND EXPENDITURE 1955–56

Estimated Revenue

Income tax	£1,877,400,000	
Surtax	136,000,000	
Death duties	185,000,000	
Stamps	74,000,000	
Profits tax and excess profits tax	180,000,000	
Excess profits levy	25,000,000	
Other inland revenue duties	1,000,000	
Total inland revenue		£2,478,400,000
Customs	1,131,700,000	
Excise	796,050,000	
Total customs and excise		£1,927,750,000
Motor vehicle duties		£80,000,000
Total receipts from taxes		£4,486,150,000
Wireless licenses		£25,000,000
Receipts from sundry loans		£24,000,000
Miscellaneous		£175,000,000
Total estimated revenue		£4,710,150,000

Estimated Expenditure

Consolidated fund:		
National debt service	600,000,000	
Sinking funds	36,000,000	
Payments to Northern Ireland Exchequer	53,000,000	
Misc. consolidated fund expenditures	10,000,000	
Total consolidated fund		£699,000,000
Supply services: Defense:		
Army	484,000,000	
Navy	347,000,000	
Air	540,400,000	
Ministry of Supply	147,500,000	
Ministry of Defense	18,300,000	
Total supply services		£1,537,200,000
Less sterling counterpart of economic aid appropriated-in-aid of defense votes		£43,000,000
		£1,494,200,000
Civil service:		
Central government and finance	21,344,000	
Commonwealth and foreign	97,319,000	
Home department, law and justice	81,741,000	
Education and broadcasting	372,360,000	
Health, housing, local government	638,731,000	
Trade, labor and supply	78,852,000	

Works, stationery, etc.	65,302,000	
Agriculture and food	385,625,000	
Transport, fuel, power and industrial research	136,751,000	
Pensions, national insurance, national assistance	437,254,000	
Total civil service		£2,315,279,000
Post office (excess over revenue)		£4,345,000
Tax collection		£49,051,000
Total estimated expenditure		£4,561,875,000
Surplus		148,275,000
Grand total		£4,710,150,000

NATURAL FEATURES AND RESOURCES; CLIMATE. The United Kingdom, consisting of England, Wales, Scotland and Northern Ireland, is a third the size of Texas. England, in the southeast part of the British Isles, is separated from Scotland on the north by the granite Cheviot Hills; from them the Pennine chain of uplands extends south through the center of England, reaching its highest point in the Lake district in the northwest. To the west along the border of Wales—a land of steep hills and valleys—are the Cambrian Mountains while the Cotswolds, a range of hills in Gloucestershire, extend into the surrounding shires. The remainder of England is plain land, though not necessarily flat, with the rocky sand-topped moors in the southwest, the rolling downs in the south and southeast and the reclaimed marshes of the low-lying Fens in the east central districts. Scotland is divided into three physical regions—the Highlands, the Central Lowlands, containing two-thirds of the population, and the Southern Uplands. The western Highland coast is intersected throughout by long narrow sea-lochs or fiords. Scotland also includes the Outer and Inner Hebrides and other islands off the west coast, and the Orkney and Shetland Islands off the north coast.

Wales is generally hilly; the Snowdon range in the northern part culminates in Mt. Snowdon (3,557 ft.), highest in either England or Wales.

In addition to the numerous inlets and bays of the coast, England has a group of lakes in the northwest which includes Windermere, Coniston, Derwentwater, Ullswater and Grasmere. Important rivers flowing into the North Sea are the Thames, Humber, Tees and Tyne. In the west are the Severn and the Wye, which empty into the Bristol Channel and are navigable, as are the Mersey and Ribble. Scotland has many picturesque lakes; its most important river is the Clyde.

Minerals. Great Britain's most important mineral resource is coal, which was responsible to a large extent for British industrial supremacy during the late 18th and the 19th centuries. The coal mines were nationalized in 1946. Reserves have been variously estimated at from 150,000 million to 200,000 million tons. Prior to World War II, coal was exported in declining amounts to the continent, mainly to France, Sweden, Denmark and Italy. Since the war, however, exports have been negligible, and Britain has been hard put to meet her own minimum domestic requirements.

Most of the British iron ore is produced in England, especially in Cumberland, Lancashire and Staffordshire. Tin ore and copper are obtained almost exclusively from Cornwall, while lead comes mainly from Flint, Durham and Derbyshire. Zinc occurs mainly in North Wales, the north of England, the Isle of Man and the county of Dumfries in Scotland. The whole British supply of china clay (kaolin)—of great importance in the ceramic, papermaking, bleaching and chemical industries—comes from Cornwall. Petroleum production is negligible, but oil shale exists in large quantities.

MINERAL PRODUCTION, 1953 and 1954
(in thousands of long tons)

	1953	1954
Coal*	224,207	224,090
Iron ore	15,818†	15,557†
Aluminum	111	116
Superphosphates (P_2O_5 content)	195	170
Zinc (smelter)	73	81

* Excluding No. Ireland. † 52 weeks.

Water Power. The most important potential sources of water power are in the highlands of Scotland, North Wales and Cumberland. Electricity generated in England, Scotland and Wales averaged 6,075,000,000 kwh. monthly in 1954. Gas manufacture averaged 1,385,000,000 cu. m. monthly in that year. Nationalization of the electric and gas industries became effective in 1948.

Forests and Fisheries. Great Britain was once heavily forested, but centuries of timber cutting and clearing have denuded the country of the original forests. Woodland of all types approximates 3,000,000 acres, and barely 40 per cent of Britain's surface is covered with timber. Consequently the nation is heavily dependent on imported timber.

Great Britain's sea fishing industry is among the most important in the world. The principal kinds of fish caught are herring, cod, haddock, plaice and hake classed as wet fish, and, among shellfish oysters, crabs and lobsters. The most important factor in the export trade is salted

herring, which ordinarily represents about 70 per cent of the total. The principal grounds frequented by British fishermen are the North Sea; off Iceland; the Faeroes; south of Ireland; west of Scotland; west of Ireland; the Irish Sea and English Channel. The catch of wet fish in 1954 was 938,631 long tons valued at £43,401,542.

Climate. Although Great Britain lies in the same approximate latitude as Labrador, its climate is tempered by the westerly winds blowing off the warm Gulf Stream. The sea winds also prevent excessive summer heat. Rainfall is abundant, especially in the early fall. London's famed "pea-soup" fogs occur most frequently in November and March. It has been estimated that clouds, fogs or mists obscure the sun for approximately two-thirds of the daylight hours.

The mean annual temperature of England and Wales is about 50°; the west coast is somewhat warmer than the east. January is the coldest month (average about 40°) and July the hottest (about 61.5°). Highest July temperatures usually occur around London, where the mean is somewhat above 64°. Coldest months in the capital are December (about 38°) and January (about 39°). The mean annual rainfall in London is 23½ inches.

North of Birmingham, the summers are cool, and in Edinburgh the mean temperature in July is usually below 60°. Rainfall is less than in London.

NORTHERN IRELAND

(Part of United Kingdom)

Area: 5,238 square miles.
Population (est. Dec. 1954): 1,389,000.
Density per square mile: 265.2.
Governor: Lord Wakehurst.
Prime Minister: Viscount Brookeborough.
Principal cities (census 1951*): Belfast, 443,670 (capital); Londonderry, 50,099 (clothing).
Monetary unit: Pound sterling.
Language: English, Gaelic.
Religions (census 1951): Roman Catholic (34.4%), Presbyterian (29.9%), Church of Ireland (25.8%), Methodist (4.9%), others (5%).

* Provisional figures.

Northern Ireland comprises the six predominantly Protestant counties of Antrim, Armagh, Down, Fermanagh, Londonderry and Tyrone (collectively known as Ulster), which form the northern part of the island of Ireland. The area is an integral part of the United Kingdom, but under the terms of the Government of Ireland Act (1920) it has a semi-autonomous government.

The government has only limited powers for local purposes, and many matters are reserved to the central government at Westminster. Executive authority is vested in the Crown-appointed Governor, who is advised by a Cabinet of eight ministers headed by the Prime Minister. The Parliament consists of the House of Commons of 52 members elected for 5-year terms, and the Senate of 26 members elected by the House of Commons. The general elections of Oct. 22, 1953, returned 38 Unionists, 9 Nationalists and 5 representatives of other groups to the House. The area is also represented by 12 members in the British Parliament at London.

In 1952–53 there were 1,626 primary schools (up to 11 years) in Northern Ireland, with enrollment of 198,390, and 80 secondary schools, with enrollment of 30,065. Students at the Queen's University (Belfast) numbered 2,645.

Agriculture is the largest single industry; about two-thirds of the country is devoted to crops and pasture under a system of mixed farming. The leading crops include potatoes, oats and flax. In 1953 there were 936,482 cattle, 895,370 sheep and 758,841 hogs.

The two principal manufacturing industries are linen and shipbuilding, both centered in Belfast. The linen industry was established by Huguenot weavers who fled France after the revocation of the Edict of Nantes in 1685.

On Mar. 31, 1955, 17 ships of 211,250 tons were under construction at Belfast.

The topography of Northern Ireland is somewhat similar to that of the rest of the island, with two ranges (Donegal and Sperrin) and an extensive plateau (Antrim) in the northeastern part. Mineral resources are limited to deposits of basalt, clay, sandstone and granite. Fishing is an important industry, off the coast and in the numerous lakes and rivers which abound in salmon, eels and trout. Lough Neagh, covering about 153 square miles, is the largest lake in the British Isles.

The climate is comparable to that of the rest of the United Kingdom, although somewhat more equable. The highest mean summer temperature is about 59° in July, and the mean winter temperature rarely falls below 40°. Most of the comparatively light rainfall occurs in the autumn.

ISLE OF MAN

Lieutenant Governor: Sir Ambrose Dundas.

Located in the Irish Sea, equidistant from Scotland, Ireland and England, the Isle of Man is administered according to its own laws by a government composed of the Lieutenant Governor (appointed by the Crown), a Legislative Council of 11 members, and a House of Keys of 24 elected members, one of the most ancient legislative assemblies in the world. All sitting together constitute the court of Tynwald,

which controls revenue and has executive power. Acts of the British Parliament do not affect the island unless it is named.

Agriculture and fishing are the principal industries. The island is a popular English summer resort.

CHANNEL ISLANDS

Lieutenant Governor of Jersey: Adm. Sir Randolph Nicholson.
Lieutenant Governor of Guernsey: Air Marshal Sir Thomas Elmhirst.

This group of islands, lying in the English Channel off the northwest coast of France, is the only portion of the Duchy of Normandy belonging to the English Crown, to which it has been attached since the conquest of 1066. It was the only British possession occupied by Germany during World War II.

For purposes of government the islands are divided into Jersey (45 sq. mi.) and the bailiwick of Guernsey (24 sq. mi.), including Alderney (3 sq. mi.), Sark (2 sq. mi.), Herm and Jethou. The islands are administered according to their own laws and customs by local governments headed by Crown-appointed Lieutenant Governors. Acts of Parliament in London are not binding on the islands unless they are specifically mentioned.

The two main sources of income for the population are agriculture, especially stock-raising, and the tourist trade. French is still the official language, although English is the main language of commerce.

GIBRALTAR—Status: Colony.
Governor: Lt. Gen. Sir Harold Redman.

Gibraltar, at the south end of the Iberian Peninsula, is a rocky promontory commanding the western entrance to the Mediterranean. Aside from its strategic importance, it is also a free port, naval base and coaling station. It was captured by the Arabs crossing from Africa into Spain in A.D. 711. In the 15th century it passed to the Moorish ruler of Granada and later became Spanish. It was captured by an Anglo-Dutch force in 1704 during the War of the Spanish Succession and passed to Britain by the Treaty of Utrecht in 1713. Most of the inhabitants are of Spanish, Italian and Maltese descent. There are no important industries. Gibraltar's climate is equable, with summer temperatures averaging about 84° maximum. Mean annual temperature is 64.4° and annual rainfall is about 35 inches.

MALTA—Status: Self-governing colony.
Capital: Valletta (population 18,588).
Governor: Maj. Gen. Sir Robert Laycock.
Prime Minister: Dominic Mintoff.
Foreign trade (1954): exports, £623,722 (41% to Britain); re-exports, £2,401,554 (largely fuel for ships and aircraft); imports, £20,407,418 (36% from Britain). Chief domestic export: potatoes (22%).
Agricultural products: potatoes, onions, cereals, fruits.

The Maltese islands lie between Europe and Africa, in the central channel linking the eastern and western Mediterranean. The inhabited islands are Malta (95 sq. mi.), Gozo (26 sq. mi.) and Comino (1 sq. mi.). The Knights of St. John (Malta), who obtained the islands from Charles V in 1530, reached their highest fame when they withstood an attack by superior Turkish forces in 1565. Napoleon seized Malta in 1798, but the French forces were ousted by British troops in 1799, and British rule was confirmed by the Treaty of Paris (1814). The principal importance of Malta is its strategic location as a naval base; it was heavily attacked by German and Italian aircraft during World War II but was never invaded by the Axis. Most of the population are Maltese, speaking the Phoenician Maltese language, a tongue akin to Syriac and Arabic. The islands are densely populated (2,611 per square mile in 1955).

Under its 1947 Constitution, Malta enjoys a measure of self-government. The locally-elected Assembly has complete control over domestic affairs, but the British government keeps control over matters dealing with defense and foreign affairs.

The climate is temperate and healthful. Annual mean temperature is 64.5°, with June-September the hottest months and December-February the coldest (56°). Rainfall is irregular, averaging about 20 inches annually.

AFRICA

ANGLO-EGYPTIAN SUDAN (See EGYPT).

BRITISH SOUTH AFRICAN PROTECTORATES

High Commissioner: Sir John Le Rougetel.

The three British protectorates in southern Africa—Basutoland, Bechuanaland and Swaziland—are not part of the Union of South Africa, but are administered by a High Commissioner responsible to the Secretary of State for Commonwealth Relations in the British Cabinet. He also holds the office of High Commissioner for the United Kingdom in the Union of South Africa.

BASUTOLAND—Status: Protectorate.
Capital: Maseru (population 3,383).
Resident Commissioner: E. P. Arrowsmith.
Foreign trade (1953): exports, £2,348,725 imports, £2,591,126. Chief exports: wool mohair.

Agricultural products: corn, wheat, sorhum.

Basutoland is a mountainous enclave urrounded by the Union of South Africa nd bounded by the Orange Free State, ape Province and Natal. It was constiuted a native state under British proection by a treaty signed with the native hief Moshesh in 1843. It was annexed to ape Colony in 1871, but on Mar. 13, 1884, as restored to direct control by the rown. The Resident Commissioner is adised by a council of 100, of whom 95 are ominated by the native chiefs who adinister the affairs of their tribes.

The population is restricted almost enirely to the lowland strip in the west; the hite population (1,676 by the last census, 1946) consists solely of officials, missionries, traders and a few labor agents for mployers in the Union of South Africa. bout 100,000 natives are regularly emloyed in the Union. Sheep raising is ighly developed. Land is the common roperty of the nation and is held in trust y the chiefs. There are no European armers.

The climate is dry and variable; temperatures range from 11° to 93°. Rainfall also variable, but it is heaviest during the ummer months; it averages about 30 nches annually.

BECHUANALAND—Status: Protectorate. Capital: Mafeking, in Cape Province (population 4,666).
Resident Commissioner: W. F. Mackenzie.
Foreign trade (1953): exports, £2,168,155; nports, £2,416,404. Chief export: pastoral roducts.
Agricultural products: hides and skins, attle, butter, millet, maize.
Minerals: gold and silver.

Bechuanaland lies in south central Afica, bounded on the south and southeast y the Union of South Africa, on the west y South-West Africa, on the north by ngola and Northern Rhodesia and on the ortheast by Southern Rhodesia. Its averge elevation is 3,300 feet and the greater art is gently undulating. The area was laced under British protection on Sept. 0, 1885, to prevent further Boer encroachent and has since remained a British rotectorate. The form of government is milar to that of Basutoland.

Most of the inhabitants are Bantu, but here were 2,825 Europeans in 1946, a few f them farmers. The country is essenally pastoral, with cattle raising and airy farming the chief industries. Gold is ined in the Tati district near Francisown. There is also some mining of silver nd copper. Timber is produced for use as uel and pit props.

The summers are intensely hot; winters May-August) are pleasant. Rainfall ocurs mostly between December and May, nd averages about 18 inches annually.

SWAZILAND—Status: Protectorate.
Capital: Mbabane (population 1,600).
Resident Commissioner: D. L. Morgan.
Foreign trade (1953): exports, £3,113,676; imports, £1,926,813. Chief exports: cattle, asbestos.
Agricultural products: cattle, hides and skins, butter, tobacco, corn, millet.
Minerals: asbestos, tin, gold.

Swaziland lies at the southeastern corner of the Transvaal. It is largely hilly, with an average elevation of 4,000 feet in the west. It came under the protection of the Transvaal Republic in 1894 but was made a British protectorate in 1906 under the High Commissioner for South Africa.

The natives are mostly Swazi; there were 3,204 Europeans in 1946, mostly farmers. Grazing is the principal native occupation; there is excellent pasture in the high land to the west. Tropical and subtropical crops are raised in the lower areas. Tin is mined near Mbabane.

Rainfall is moderate throughout the protectorate (about 20 inches a year) and is heaviest in summer. Average temperature ranges from about 65° in July to 80° or more in January.

EAST AFRICA HIGH COMMISSION

The East Africa High Commission, comprising the Governors of Kenya, Tanganyika and Uganda, administers the public utilities and other central services of those territories, and has power to legislate with respect thereto with the advice and consent of a Central Legislative Assembly. The governments of the three areas are otherwise independent of one another.

KENYA—Status: Colony and protectorate.
Capital: Nairobi (pop. 1948: 119,489).
Governor: Sir Evelyn Baring.
Foreign trade (1954)*: domestic exports, £20,260,196; re-exports, £2,508,644; imports, £60,328,684. Chief exports: coffee (28%), tea (10%), sisal (10%).
Agricultural products: coffee (exports 1954: 10,773 long tons); sisal (exports 1954: 32,232 tons); tea (exports 1954: 4,840 tons); pyrethrum, sugar cane.
Minerals: gold (exports 1954: 9,012 oz.), sodium carbonate, silver, salt.
Forest products: wattle bark and extract, timber.

* Import and re-export figures exclude outward transfers of imported goods to Tanganyika and Uganda.

Kenya extends along the Indian Ocean between Ethiopia and Tanganyika Territory and westward to Lake Victoria and Uganda. Formerly known as the East Africa Protectorate, it was held under a concession from the Sultan of Zanzibar by the Imperial British East Africa Company from 1888 to 1905. It became a Crown colony in 1920, the coastal strip leased from the Sultan becoming a protectorate.

The colony is predominantly agricultural, and a large area is cultivated by Europeans. Altitude ranges from sea level to more than 9,000 ft.; hence, the cultivation of tropical, subtropical and temperate crops is possible. Non-natives (1952) included more than 40,000 Europeans and 150,000 Asiatics.

Kenya has been plagued since 1952 by serious outbreaks of native terrorism inspired by the anti-white Mau Mau secret society, which have taxed strengthened security forces, including British regular army units.

The coastal zone of Kenya is hot and humid; February to April are the hottest months, with a mean temperature of 82° at Mombasa. June and July are coolest (76° at Mombasa). The yearly average rainfall is about 48 inches. In the interior highlands the climate is temperate, and the rainfall comparatively heavy. Yearly average temperatures at Nairobi are 60° to 66°.

TANGANYIKA TERRITORY—Status: U. N. trust territory.
Capital: Dar es Salaam (pop. 1952: 99,140).
Governor: Sir Edward F. Twining.
Foreign trade (1954)*: domestic exports, £36,250,748; re-exports, £1,544,656; imports, £31,962,376. Chief exports: sisal (30%), coffee (27%), cotton, diamonds.
Agricultural products: sisal (exports 1954: 167,642 long tons); coffee (exports 1954: 19,882 tons); cotton (exports 1954: 12,111 tons); peanuts, sugar cane, tea.
Minerals (exports 1954): gold (72,212 fine oz.); diamonds, 329,947 carats.
Forest products: gum arabic and copal, beeswax, timber.

* Import and re-export figures exclude outward transfers of imported goods to Kenya and Uganda.

Tanganyika Territory, with the Belgian Ruanda and Urundi, constituted German East Africa from 1884 until 1919. It was administered under League of Nations mandate by Britain until 1946, when it was placed under United Nations trusteeship, with Great Britain as the administering power.

Tanganyika's narrow coastal plain is bordered on the west by the precipitous eastern side of the Central African plateau. Mount Kilimanjaro (19,565 ft.) is the highest point on the African continent. The territory also includes adjacent islands in the Indian Ocean.

The territory is sparsely populated; two-thirds of the area is uninhabited. In 1952 there were 17,885 Europeans and 69,524 Indians and Arabs. It is the world's largest producer of sisal hemp. Most of the hemp, which is of the highest grade, is grown in the drier parts of the coast belt under European supervision. Stock raising is also important, but its progress is hampered by prevalence of the tsetse fly.

The climate generally is hot and humid on the coastal areas, with the temperature averaging 80° at Dar es Salaam. Rainfall in the capital averages 60 inches. Inland the rainfall and temperature are lower.

UGANDA—Status: Protectorate.
Capital: Entebbe (population 7,321).
Governor: Sir Andrew Cohen.
Foreign trade (1954)*: domestic exports, £40,574,810; re-exports, £453,450; imports, £25,198,845. Chief exports: cotton lint (51%), coffee (33%).
Agricultural products: cotton (exports 1954: 70,241 long tons); coffee (exports 1954: 34,647 long tons); sugar cane, rubber, tea, sisal.
Minerals: gold, tin.

* Import and re-export figures exclude outward transfers of imported goods to Kenya and Tanganyika.

Uganda lies immediately south of Anglo-Egyptian Sudan and west of Kenya, along the northwest shore of Lake Victoria. The surface is extremely diversified, with lofty plateaus, snow-capped peaks, swamps, forests and arid areas. A British protectorate over the area was proclaimed in 1894. A large measure of home rule is given the native states, notably Buganda, whose *kabaka* (king) is assisted by a ministry and native parliament.

Agriculture, including livestock, is the basis of the economy. Cotton is raised principally by natives, and coffee, tea and rubber are grown on large plantations. Most natives possess large herds of cattle and sheep. In 1948 there were 7,600 Europeans and 37,450 Asiatics.

Like the topography, the climate is extremely variable. At Entebbe, the mean temperature is about 70°.

GAMBIA—Status: Colony and protectorate.
Capital: Bathurst (population 19,602).
Governor: Sir Percy Wyn Harris.
Foreign trade (1954): exports, £3,046,136; imports, £2,595,266. Chief export: peanuts (88%).
Agricultural products: peanuts (export 1954; 47,260 long tons), hides and skins millet, rice, palm kernels.

Gambia, smallest of the British West African dependencies, is a stretch of land 200 miles long on both sides of the lower Gambia River, surrounded on all land sides by French West Africa and fronting on the Atlantic Ocean. During the 17th century it was settled by various companies of English merchants; slavery was the chief source of revenue until it was abolished in 1807. Gambia became a Crown colony in 1843. Except for the island of St. Mary, on which the capital stands, the area is administered as a protectorate.

The inhabitants, mostly Negroes or Negroids, are predominantly Mohammedan. The principal economic activity is the cultivation of peanuts. Internal transportation is by steamer and launch. Temper

atures are fairly regular throughout the year, ranging from about 60° to 85°. Maximum rainfall is in August and September; it averages 50 inches or more annually.

GOLD COAST—Status: Colonies (Gold Coast Colony, 23,937 square miles; Ashanti, 24,379 square miles); protectorate (Northern Territories, 30,486 square miles); U. N. trust territory (Togoland, 13,041 square miles).
Capital: Accra (population 135,456).
Governor: Sir Charles Arden-Clarke.
Prime Minister: Kwame Nkrumah.
Foreign trade (1953): exports, £90,240,000; imports, £73,980,000. Chief exports: cacao, gold, manganese ore.
Agricultural products: cacao (1952–53: 247,500 long tons), copra, palm kernels.
Mineral exports (1953): gold (730,200 oz.), manganese ore (744,000 long tons), diamonds (2,165,400 carats).

Early a center of the slave trade and of Anglo-Dutch rivalry, the Gold Coast, stretching along the Gulf of Guinea for 370 miles, became a British possession in 1871. Ashanti, in the interior, became a protectorate in 1896 and was annexed in 1901. The Northern Territories, to the north of Ashanti, were made a protectorate in 1901. Under the 1954 Constitution, the colony is virtually self-governing in internal affairs; it is administered by a Governor with an all-African Cabinet headed by a Prime Minister and a popularly elected Assembly of 104. Togoland, formerly German, was divided into French and British spheres and placed under League of Nations mandate after World War I, and under U. N. trusteeship in 1946.

Except for 6,773 non-Africans (1948), the population is all Negro. The main native industry is the cultivation of cacao, in the production of which the colony leads the world. The climate on the coast is hot and humid, ranging on the average from 78° to 80°. Rainfall is about 27 inches annually at Accra.

KENYA (See EAST AFRICA HIGH COMMISSION)

MAURITIUS—Status: Colony.
Capital: Port Louis (pop. 1954: 90,978).
Governor: Sir Robert Scott.
Foreign trade (1954): exports (including re-exports), 266,310,507 rupees (74% to Britain); imports, 214,359,355 rupees (38% from Britain). Chief export: sugar (96%).
Agricultural products: sugar (1954: 498,568 metric tons), tobacco, tea, copra.

Mauritius is a mountainous island of volcanic origin in the Indian Ocean, about 500 miles east of Madagascar. It was seized in 1810 from the French, who had settled it in 1715, and was formally ceded to Great Britain by the Treaty of Paris in 1814.

With over 600 persons per square mile, the island is one of the most densely populated regions in the world. The population has a large white element, chiefly French and British, but British Indians are predominant. There are many half-castes. The leading industry is sugar cultivation.

The climate is pleasant during the cool season, but extremely hot from December to April (90° to 96° at Port Louis). During this period there are also frequent torrents of rain and occasional severe cyclones.

NIGERIA, FEDERATION OF—Status: Colony and protectorate.
Governor general: Sir James Robertson.
Principal cities (census 1952–53): Ibadan, 459,196 (native metropolis); Lagos, 272,000 (capital); Ogbomosho, 139,000 (native city); Kano, 130,000 (textiles, leather goods, cattle).
Monetary unit: Nigerian pound.
Languages: Native tongues, Arabic, English.
Religions: Mohammedan, Pagan, Christian.

Nigeria, with an area twice that of California, is situated on the Gulf of Guinea in West Africa. It was visited by European traders and explorers in the 16th and 17th centuries, and by the end of the 18th century British operators had a virtual monopoly in the area. Between 1879 and 1914, a series of private colonial developments by the British, together with reorganizations of the Crown's interest in the region, resulted in the formation of Nigeria as it exists today. During World War I, native troops of the West African frontier force joined with French forces to defeat the German garrison in the Cameroons. The Cameroons, a narrow strip along Nigeria's eastern border, became a League mandate after World War I, divided between France and Britain. Today the British Cameroons, a U. N. trust territory, is attached to Nigeria for administrative purposes.

Under the Constitution of Oct. 1, 1954, Nigeria is a federation of 3 regions (Northern, Western and Eastern), and the quasi-federal territory of the Southern Cameroons. The administration is headed by the Governor General, assisted by a Council of 14 ministers, of whom 4 are exofficio and 10 are selected from the federal House of Representatives of 184 popularly elected members. Certain subjects are reserved to the federal government; each region has an elected Assembly and a Cabinet headed by a Premier. Administration of the Southern Cameroons is headed by a Federal Commissioner; there is a Legislative Assembly and an Executive Council. The Northern Cameroons is attached to the Northern Region.

The vast majority of the population is Negro, although in the north there has been an admixture caused by invasions of Fula, Berber and Arab or Arabized people. Mohammedanism is the dominant religion.

Most of the people are agriculturists. The staple food crops are durra (guinea corn), millet, yams, bananas and maize. Among the leading export crops are cacao (1954 exports: 98,340 long tons), peanuts (decorticated) (427,800 tons), palm kernels (464,300 tons), palm oil (208,500 tons) and rubber (21,100 tons). Hides and skins are also important export items. Aside from small native industry, there is no manufacturing.

Most external trade is with Britain. Chief exports are cacao, peanuts, palm kernels and oil and tin concentrates. Exports in 1954 totaled £149,000,000; imports, £113,800,000.

There is a substantial internal trade; Kano is a busy terminal for caravan routes. The Niger and several other rivers are navigable; otherwise, the 1,901 miles of railway are the chief means of transportation. Highway mileage totals about 21,000. The main ports, except Lagos, are on rivers. Air service is supplied by BOAC, Air France and other international lines.

Nigeria is a leading tin producer—9,300 short tons in 1953—from mines on the Bauchi plateau. Other minerals are coal, gold, lead, silver and tungsten. Over half the area is forested, but forest resources are comparatively unexploited. Mahogany is the main timber export.

All of Nigeria lies within the tropics, but the climate varies from tropical in the south to near temperate on some parts of the plateau. In the south the temperature varies beween 70° and 100°, and averages upwards of 80°. Rainfall there is over 100 inches a year.

FEDERATION OF RHODESIA AND NYASALAND

Governor General: Lord Llewellin.
Prime Minister: Viscount Malvern (formerly Sir Godfrey Huggins).

This is a federation of three British central African territories—Northern Rhodesia, Nyasaland and Southern Rhodesia. The federation embraces a block of territory (about 489,100 sq. mi.) extending southward for about 1,000 mi. from Tanganyika and the Belgian Congo to Bechuanaland and the Union of South Africa.

The federation came into existence on Oct. 23, 1953, when its Constitution took effect. The government is headed by the Crown-appointed Governor General, who is advised by a council of ministers headed by the Prime Minister. Legislative authority is vested in the Federal Assembly of 35 members, 17 from Southern Rhodesia, 11 from Northern Rhodesia and 7 from Nyasaland. Of these, 9 members (6 Africans and 3 Europeans) are specially elected or appointed to represent African interests. The federal government has exclusive control of several matters, including foreign affairs, defense, immigration, foreign trade, currency, transport and postal service.

The first general election for the Assembly took place on Dec. 15, 1953, and the first Assembly convened on Feb. 2, 1954.

NORTHERN RHODESIA—Status: Protectorate.
Capital: Lusaka (pop. 1953: 60,000).
Governor: Sir Arthur Benson.
Foreign trade (1953): exports, £93,744,236 (61% to Britain); re-exports, £1,090,944; imports, £51,832,830 (36% from Britain). Chief export: copper (92%).
Agricultural products: tobacco, maize, wheat.
Minerals: copper (1954: 385,200 metric tons), cobalt, vanadium, lead, zinc.

Northern Rhodesia is in south central Africa. Much of the country consists of high plateau, with the Congo-Zambezi watershed rising in places to 5,000 feet. Rhodesia was assigned in 1889 to the British South Africa Company, headed by Cecil Rhodes. Administrative control was transferred to the Crown on Apr. 1, 1924.

Native tribes number from 50 to 60; there were 50,000 Europeans in 1953. More than 3,000,000 acres are owned and occupied by Europeans. Metals constitute almost all exports by value. Lead and zinc deposits occur at Broken Hill; copper at Bwana M'Kuba. The main line of the Rhodesian railway crosses the northern part of the colony from Livingstone to the Congo border. A number of the rivers are navigable.

Average temperature in the south ranges from about 65° in July to 80° or more in October. The rainfall occurs principally between November and April; it varies widely in different parts of the protectorate.

NYASALAND—Status: Protectorate.
Captial: Zomba (pop. about 5,000).
Governor: Sir Geoffrey F. T. Colby.
Foreign trade (1953): exports and re-exports, £7,328,040; imports, £7,697,895. Chief exports: tobacco (40%), tea (22%).
Agricultural products: tobacco (exports 1953: 12,960 short tons), tea, cotton.

Nyasaland, a British protectorate since 1891, is a narrow area lying between Mozambique, Northern Rhodesia and Tanganyika Territory along the southern and western shores of Lake Nyasa. Agriculture is the chief occupation, both of the European settlers and natives. Europeans numbered 4,073 in 1952.

The climate is extremely humid along the shores of Lake Nyasa, although the temperature rarely rises above 95°. In the highlands, above 3,000 feet, average temperatures are considerably lower. The dry season, from May to September, is comparatively cool. Annual rainfall is about 35 inches in the lowlands and 50 inches in the highlands.

SOUTHERN RHODESIA—Status: Self-governing colony.
Capital: Salisbury (pop. 1953: 120,000).
Governor: Vice-Adm. Sir Peveril William-Powlett.
Prime Minister: R. S. Garfield Todd.
Foreign trade (1953): exports, £53,955,323 (35% to Britain); re-exports, £11,483,629; imports, £77,677,588 (50% from Britain). Chief exports: tobacco (33%), asbestos, gold, chrome ore.
Agricultural products: tobacco (1953: 105,996,056 lb.), corn, peanuts, meat, hides and skins.
Minerals (1953): asbestos (87,739 short tons), gold (501,057 fine oz.), coal (2,886,433 tons), chrome ore (463,030 tons).

Southern Rhodesia is separated from Northern Rhodesia by the Zambezi River.

The country was settled in 1890 by the British South Africa Company, led by Cecil Rhodes. With the expiration of the company's charter, the white residents voted (1922) in favor of a responsible government of their own, and on Sept. 12, 1923, the country was annexed to Britain.

Southern Rhodesia has responsible government and a popularly elected Legislative Assembly of 30 members, but control of foreign relations and certain other matters is reserved to the federal government.

Most of the inhabitants are natives, but the country is well-adapted to European settlers, who in mid-1953 numbered 158,500. In addition, there were 11,400 Asiatics and half-castes. Mining is the basis of the economy. Farming ranges from ranching to tobacco growing, but mixed farming is becoming more common. Conditions for cattle raising and dairy farming are especially favorable. Manufacturing is of growing importance, with the factories producing goods valued at £55,556,813 in 1952. The colony is well served with railways, roads and airlines.

The hottest month is October (mean maximum 85.2°); the coolest are June, July and August, when frost is likely to occur. Generally the days are hot throughout the year, and the nights are frequently cool. Rainfall, averaging 28 inches annually, is greatest in October to December.

ST. HELENA—Status: Colony.
Capital: Jamestown (population 1,547).
Governor: James D. Harford.
Foreign trade (1954): exports, £46,915 (98% to Britain); imports, £214,852 (56% from Britain). Chief export: hempen products (99%).
Agricultural products: flax, potatoes.

St. Helena is a volcanic island (47 sq. mi.) in the South Atlantic about 1,200 miles from the west coast of Africa. It is famous as the place of exile of Napoleon (1815–21). It was taken for Britain in 1651 by the British East India Company and became a Crown colony in 1833. Attached to it are Ascension Island (34 sq. mi.), 800 miles northwest, and the Tristan da Cunha group (45 sq. mi.), about 1,500 miles southwest. Most of the inhabitants are of mixed European, East Indian and African descent.

Although St. Helena is in the tropical zone, its climate is temperate and healthful; the temperature varies from 68° to 84° in summer and 57° to 90° in winter. Rainfall is extremely variable.

SEYCHELLES—Status: Colony.
Capital: Victoria (population 9,497).
Governor: Sir William Addis.
Foreign trade (1954): exports (domestic), 9,081,850 rupees; imports, 8,086,860 rupees. Chief export: copra (72%).
Agricultural products: cinnamon, patchouli oil, coconuts, maize, sugar cane.

This archipelago of about 92 islands in the Indian Ocean was seized from France by British troops in 1794 and was ceded to Great Britain by the Treaty of Paris in 1814. The principal island is Mahé (55 sq. mi.), about 600 miles northeast of Madagascar. The climate is temperate.

SIERRA LEONE—Status: Colony and protectorate.
Capital: Freetown (population: 64,576).
Governor: Sir Robert Hall.
Chief Minister: M. A. S. Margai.
Foreign trade (1954): exports, £11,000,876 (68% to Britain); imports, £13,376,250 (69% from Britain). Chief exports: palm kernels (34%), iron ore (25%), diamonds (15%).
Agricultural products: palm kernels and oil, rice, millet, cassava, rubber.
Minerals (exports 1954): iron ore (887,306 long tons); diamonds (443,598 carats), gold (2,530 troy oz.).
Forest products: palm kernels, piassava.

Sierra Leone lies on Africa's west coast between French Guinea and Liberia. It is a well-watered hilly country but has a low swampy coastland with an extremely unhealthful climate. The coastal area (colony proper) was ceded to English settlers in 1788 as a home for Negroes discharged from the British armed forces and also for runaway slaves who had found asylum in London. The British protectorate over the hinterland was proclaimed in 1896. It was not until 1928 that slavery was totally abolished in the protectorate. Under the 1951 Constitution there is a Legislative Council of 30 members, of whom 21 are elected directly or indirectly.

Freetown is the best harbor on the west coast.

SOMALILAND—Status: Protectorate.
Administrative center: Hargeisa (population 17,500).
Governor: Theodore O. Pike.
Foreign trade (1954): exports, £1,210,000; imports, £2,360,000. Chief export: hides and skins.
Agricultural products: cattle, hides and skins, grains.
Forest products: gums and resins.

British Somaliland extends along the Gulf of Aden for about 400 miles and inland for 80 to 220 miles. The interior is an elevated plateau falling in steep escarpments to the coastal plain. It came under Egyptian influence in 1875, but during the years 1884–86 treaties guaranteeing British protection were signed with the various Somali chiefs. Italian troops occupied the protectorate in 1940, but it was retaken by British troops in 1941. Both executive and legislative power is exercised by the Governor.

Most of the inhabitants are nomadic Somalis of Mohammedan faith. Their principal activity is stock raising. The climate is extremely hot and arid, with rainfall in the coastal areas averaging less than 8 inches. The average temperature at Berbera, on the coast, is 77° in January and about 98° in July.

SOUTH-WEST AFRICA (See UNION OF SOUTH AFRICA)

SWAZILAND (See BRITISH SOUTH AFRICAN PROTECTORATES)

TANGANYIKA & UGANDA (See EAST AFRICA HIGH COMMISSION)

Union of South Africa

(Member of Commonwealth of Nations)

Area: 472,550 square miles.*
Population (est. 1954): 13,393,000* (European, 21.0%; Bantu, 67.5%; mixed, 8.2%; Asiatic, 3.3%).
Density per square mile: 28.3.*
Ruler: Queen Elizabeth II.
Governor General: Ernest G. Jansen.
Prime Minister: Johannes G. Strijdom.
Principal cities (census 1951): Johannesburg, 880,014 (gold, industrial center); Capetown, 571,638 (seat of legislature, seaport); Durban, 475,026 (seaport); Pretoria, 283,148 (seat of administration); Port Elizabeth, 188,617 (seaport).
Monetary unit: South African pound (£SA).
Languages: English, Afrikaans.
Religions (European pop., 1946): Dutch Reformed Churches, 55%; Anglican Church, 19%; Methodist, 6%; Presbyterian, 5%; Roman Catholic, 5%; others 10%.

* Excluding South-West Africa.

HISTORY. After the discovery of the Cape of Good Hope in 1488 by Bartholomeu Diaz, the Dutch sent the first colonists to the area in 1652. The British seized the territory in 1814 near the close of the Napoleonic wars, when Holland was France's ally. In protest against the British rule, thousands of Boers, settlers of Dutch descent, trekked northward between 1835 and 1838 and set up the republics of Orange Free State and Transvaal, subsequently recognized by the British.

The discovery of gold in Transvaal in 1886 brought an influx of English and other foreigners. British demands that these immigrants be enfranchised by the Transvaal government precipitated the South African War of 1899–1902, won by the British. By the Treaty of Vereeniging (May 31, 1902) the Boers renounced the independence of Transvaal and Orange Free State. In 1910, Cape Colony, Transvaal, Natal and the Orange Free State were set up as the Union of South Africa, with dominion status and with Louis Botha, a former Boer general, as the first prime minister. During World War I, South African forces seized German South-West Africa, over which the Union later received a mandate by the Treaty of Versailles.

When World War II broke out, there was considerable pro-German and anti-British feeling in South Africa. The country went to war against the Axis, however, under Prime Minister Jan C. Smuts.

In the elections of May, 1948, Smuts' United party was defeated by a Nationalist-Afrikaner coalition, which favored strict racial segregation. Enforcement of this policy led to severe racial disturbances and unrest and a prolonged constitutional crisis. The National party (merged with the Afrikaner party in 1951) was continued in office in the April 1953 elections.

GOVERNMENT AND DEFENSE. The Union, as a self-governing nation, has its own Legislature, a Senate of forty-eight members elected for ten years, and a House of Assembly of 159 members elected for five years. All legislators must be Union nationals of European descent, and suffrage is virtually limited to whites. The Queen is represented by a Governor General named by her after consultation with the Union. He can summon or dissolve the Senate and House, but a general election must be held at least once every five years.

In parliamentary elections held April 15, 1953, the National party won 94 seats, United party 57 and Labour party 5. Three seats are held by representatives of natives.

Political considerations made the draft inexpedient in World War II, and all members of the armed forces were volunteers. The postwar strength of the defense forces is fixed as follows: army, 4,640; air force, 3,319; navy, 863; a total strength of 8,822 as opposed to 5,549 in the prewar establishment. The navy, only slightly expanded in World War II, has 60 small vessels, including 2 destroyers and 3 frigates.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Education for white children is compulsory from 7–16. Primary education is free and, except for vocational schools and the 9 universities, all education is under provincial control.

In 1951 there were 2,698 state and state-aided primary and secondary schools for European scholars, who numbered 499,991,

and 7,288 non-European schools with enrollment of 1,051,837. The 9 universities had 20,054 students in 1952.

The official languages are English and Afrikaans. The latter, derived from 17th-century Dutch, is taught in almost all the schools. About 70 per cent of the population over 7 years old understands both languages. European and Asiatic immigration is strictly controlled.

Agriculture. South Africa is predominantly a pastoral country, with less than 15 per cent of its area considered arable Sheep and cattle raising are the principal occupations, especially in the high veldt. Wool production in 1953–54 was estimated at 281,792,990 lb. In 1953 there were 35,992,167 sheep, 11,654,543 cattle and 536,706 hogs.

Climate and differences in terrain combine to give a great variety of agricultural products. The staple crop is maize, grown widely with a production varying from 1½ to 3 million tons annually. In southwest Cape Province, products of the Mediterranean type predominate, while in the coastal belt of Natal and in northern Transvaal, subtropical crops, especially sugar, are grown.

Production of leading crops in 1953–54 was as follows: maize, 3,580,000 metric tons; wheat, 528,000 tons; tobacco, 18,200 tons; sugar, 658,000 tons.

Manufacturing and trade. Food, beverages and tobacco, and metal products are leading products. As a result of the need for armaments in World War II, the Union's manufacturing is no longer mainly devoted to agricultural processing. A wartime iron and steel industry was established, and cement, chemical, textile and auto assembly plants were expanded. Steel production (1954) was 1,576,916 short tons; that of pig iron, 1,319,185 tons. In 1951–52 there were 15,564 factories with 798,982 workers; gross value of production was £SA1,094,725,000. The major industrial area is southern Transvaal.

Trade statistics (in millions of South African pounds):

	1952	1953	1954
Exports*	337.1	340.9	321.6
Re-exports†	47.5	40.4	42.2
Imports	418.9	425.4	443.3

* Excluding gold bullion. † Included in export total.

Chief customers in 1953 were Britain (30%), France (12%) and the U. S. (6%); the principal suppliers, Britain (38%), the U. S. (18%) and France (17%). Chief exports in 1952 (besides gold bullion valued at £SA94,500,000) were wool (20%), semi-processed gold (14%) and diamonds (9%). Principal imports included textiles, farm and industrial machinery, motor vehicles and petroleum products.

Communications. The well-organized railway system, mostly Union-controlled, totaled 13,500 miles in 1953. Roads suitable for motor traffic amounted to 100,000 miles.

Finance. Recent data are as follows (in millions of South African pounds):

	1952–53	1953–54	1954–55*
Revenue	255.1	283.0	306.4
Expenditure	297.7	327.0	343.4

* Preliminary.

The gross public debt of the Union on Jan. 31, 1955, was £SA925,800,000, of which £SA63,700,000 was external.

NATURAL FEATURES AND RESOURCES; CLIMATE. The Union has a high interior plateau, or veldt, nearly half of which averages 4,000 feet in elevation. There are no important mountain ranges, although the Great Escarpment, separating the veldt from the coastal plain, rises to over 10,000 feet. The principal river is the Orange, rising in Basutoland and flowing westward for 1,300 miles through the Union's center to the Atlantic.

Extensive mineral resources account for the economic prosperity. The Union is the world's leading gold producer. Diamond production is now surpassed in importance by coal. Mineral production for 1954 included gold, 13,237,119 oz.; coal, 31,301,578 short tons; copper, 49,127 tons; diamonds, 2,891,264 carats; iron ore, 2,100,000 tons; platinum, 310,000 oz.; (1953) manganese ore, 910,000 tons; chromite, 800,000 tons; asbestos, 95,000 tons. Antimony, gypsum, tin and tungsten also are mined, and uranium deposits have been reported.

The whaling industry, centered at Durban on the east coast, produces considerable amounts of whale oil. The Union has extensive fishery resources along the 1,500 miles of coast line. Annual trawler catch of edible fish is about 95,000,000 pounds.

Except for the western semi-arid regions, the climate is generally subtropical, much like that of northern Florida. Rainfall averages about 40 inches a year on the east coast and decreases sharply westward. The mean annual temperature is remarkably uniform; at Johannesburg it is 60.6°, with January the hottest month. Most of the rainfall occurs from October to March.

SOUTH-WEST AFRICA—Status: Mandate.

Administrator: Daniel du P. Viljoen.

Capital: Windhoek (population 23,359).

Foreign trade (1953)*: exports, £SA35,178,261; imports, £SA24,069,726. Chief exports: karakul skins, butter, slaughter animals, diamonds.

Agricultural products: hides and skins, butter, corn, wheat.

Minerals: diamonds (1954: 683,560 carats), vanadium concentrates, tungsten, lead, tin, iron ore, copper.

* Includes trade with Union of South Africa.

The mandate, bounded on the north by Angola, and on the east by Bechuanaland and the Union of South Africa, was discovered by the Portuguese explorer Diaz in the late 15th century. It is for the most part a portion of the high plateau of South Africa with a general elevation of from 3,000 to 4,000 feet. It became a German colony in 1884 but was conquered by South African forces in 1915, becoming a Union mandate by the terms of the Treaty of Versailles. The Union of South Africa's application for incorporation of the territory into the Union was rejected by the United Nations assembly on Dec. 14, 1946, and the Union was invited to prepare a trusteeship agreement instead. By a law passed in April, 1949, however, the territory was brought into much closer association with the Union—including representation in the Union Parliament.

The country in general is better suited to grazing than to the raising of crops because of the light rainfall. The karakul sheep industry is particularly well-developed; in 1954, 2,741,355 pelts were exported. The Union accounts for almost all the imports and about 40 per cent of the exports. The principal port is Walvis Bay.

ZANZIBAR—Status: Protectorate.
Capital: Zanzibar (population 60,000).
Sultan: Seyyid Sir Khalifa bin Harub.
British Resident: H. S. Potter.
Foreign trade (1954): exports, £5,172,671; re-exports, £763,132; imports, £5,877,454. Chief export: cloves (78%).
Agricultural products: cloves (1954: 31,842,240 lb.); clove oil, copra, coconut oil.

The protectorate consists principally of the islands of Zanzibar (640 sq. mi.) and Pemba (380 sq. mi.), just off the East African coast. Before 1890, the sultanate's territory also included a large area on the mainland, now comprising Italian Somaliland, Kenya and Tanganyika Territory. It was proclaimed a British protectorate Nov. 4, 1890. The British Resident administers the government, but the Sultan still retains considerable authority.

The principal industry is the production of cloves—80 per cent of the world supply.

The climate is excessively hot and moist, with a mean annual temperature of 80.5°. June to September is the coolest season.

WESTERN HEMISPHERE

BAHAMAS—Status: Colony.
Capital: Nassau (population 36,246).
Governor: Earl of Ranfurly.
Foreign trade (1954): exports (including re-exports), £1,328,859; imports, £9,404,183. Chief exports: lumber, salt, crawfish.
Agricultural products: tomatoes, citrus fruit, sisal.
Sea products: sponges, lobsters, crawfish.

The Bahamas are an archipelago of about 3,000 islands, islets (cays) and rocks, east of Florida and north of Cuba, extending from N.W. to S.E. for about 800 miles. Only about 20 of the islands are inhabited; the most important is New Providence (20 sq. mi.) on which Nassau is located. The islands were reached by Columbus in Oct., 1492, and were a favorite pirate resort in the early 18th century. They have been a Crown colony since 1717. The Constitution provides for a nominated Legislative Council and a popularly elected Assembly. The Governor is advised by an Executive Council.

About 87 per cent of the population is Negro. The tourist trade is of paramount importance, especially at Nassau, which is a favorite winter resort. The climate is exceptionally agreeable, with mean temperatures ranging from 60° (January to March) to 88° (June to September). The rainy season is May through October; annual average fall at Nassau is 18 inches. Hurricanes occur usually from July to October.

BARBADOS—Status: Colony.
Capital: Bridgetown (population 13,345).
Governor: Sir Robert Arundell.
Prime Minister: Grantley H. Adams.
Foreign trade (1954): exports, BWI$40,397,000 (57% to Britain); imports, BWI$48,610,000 (50% from Britain). Chief exports: sugar (66%), molasses, rum.
Agricultural products: sugar (1954: 164,717 long tons), cotton.
Manufactures: rum (1954: 1,762,360 wine gal.), molasses.

Barbados, an island east of the Windward group in the West Indies, has been a British possession since 1627; it is believed to have been first visited by the Portuguese. The colony has a nominated Legislative Council and a popularly elected Assembly of 24 members. Under a ministerial system of government inaugurated Feb. 1, 1954, the Prime Minister and 4 other members of the Executive Committee (all 5 being members of the Assembly) exercise executive responsibility for most of the departments of government, except defense and foreign affairs.

The island is very densely populated (about 1,295 per sq. mi.). About 70 per cent of the inhabitants are Negro, 7 per cent white and the remainder of mixed blood. Approximately 70 per cent of the total area is cultivated and half of this is devoted to sugar, which is the staple product; there are sugar and molasses plants and several rum distilleries.

Barbados has an agreeable climate, with temperatures that range between 70° and 86°, rarely below 65°. The cold season (December through May) is also the dry season; average annual rainfall is 60 inches with September the wettest month.

BERMUDAS—Status: Colony.
Capital: Hamilton (population 3,500).
Governor: Lt. Gen. John Woodall.
Foreign trade (1954): exports, £201,636; re-exports, £3,122,496; imports, £12,458,711. Chief domestic exports: concentrated essences, brass electrical contacts.
Agricultural products: lily bulbs, potatoes, vegetables, arrowroot.

The Bermudas comprise an archipelago of about 360 small islands, 580 miles east of North Carolina. The largest is (Great) Bermuda or Main Island. Discovered by Juan Bermudez, a shipwrecked Spaniard, early in the 16th century, the islands were settled in 1612 by an offshoot of the Virginia Company and became a Crown colony in 1684. The Governor is assisted by nominated Executive and Legislative Councils and a popularly elected Assembly of 36 members. In 1940, sites on the islands were leased for 99 years to the U. S. for air and navy bases. Bermuda is also the headquarters of the West Indies and Atlantic squadron of the Royal Navy. The most important factor in the colony's economy is the tourist trade; in 1954, 104,107 persons visited Bermuda. The arable land is devoted to horticulture rather than agriculture and a large selection of vegetables and flowers provide the principal crops. The colony does not approach self-sufficiency and is heavily dependent on food imports.

Bermuda possesses one of the most delightful climates in the world. The mean annual temperature is 71°, with extremes of 49° and 94°. Rainfall averages 58 in. annually.

BRITISH GUIANA—Status: Colony.
Capital: Georgetown (population 97,821).
Governor: Sir Alfred Savage.
Foreign trade (1953): exports (including re-exports), BG$81,681,472; imports, BG$71,987,349. Chief exports: sugar (47%), bauxite (29%), rice, rum.
Agricultural products: sugar (1953: 238,539 long tons), rice (67,633 tons), copra, coffee.
Minerals (1953): bauxite (2,060,793 long tons), gold (20,965 bullion oz.), diamonds (301,744 stones).
Forest products: balata, timber.

The only British possession in South America proper, British Guiana is on the northeastern coast between Venezuela and Surinam (Dutch Guiana). Settled by the Dutch in the 17th century, it was occupied by the British in 1796 and ceded to them at the end of the Napoleonic wars. Behind the low plain which contains the farm area is a higher area containing forest and mineral resources. A new Constitution inaugurated Apr. 1, 1953, provided for a bicameral Legislature, with a lower house largely elected under universal adult suffrage, and an Executive Council with a majority of ministers drawn from the lower house on whose advice the Crown-appointed Governor was bound to act. Following charges of Communist infiltration into the government, British military and naval reinforcements were dispatched to the colony; and on Oct. 9, 1953, the Constitution was suspended.

The heterogeneous population includes Africans and mixed races, 49.5 per cent; East Indians, 44 per cent; aborigines, 2.5 per cent; Portuguese, 2.2 per cent; Chinese, 1 per cent; and others, .8 per cent.

Cultivated areas cover only 155,000 acres, mostly devoted to rice and sugar cane. About 86 per cent of the colony is forested, but the vast forest resources are relatively unexploited. Timber resources have been estimated at 41,000,000,000 cu. ft. of merchantable timber. Railway mileage is 110, and highway mileage about 700.

The coastland climate is relatively hot and humid, with average temperatures of 78° in January and 81° in October, and only a slight variation between day and night. Inland temperatures are roughly 3° higher. Rainfall is heavy along the coast —about 88 in. annually at Georgetown.

BRITISH HONDURAS—Status: Colony.
Capital: Belize (population 31,221).
Governor: Sir Patrick Renison.
Foreign trade (1954): exports (including re-exports), BH$7,287,826; imports, BH$11,409,568. Chief exports: mahogany, pine.
Agricultural products: bananas, sugar cane, citrus fruits.
Forest products (1954): cedar lumber (542,912 bd. ft.) and logs (51,461 cu. ft.), mahogany lumber (5,339,239 bd. ft.) and logs (81,415 cu. ft.), pine lumber (9,102,713 bd. ft.), chicle (11,039,000 lb.).

British Honduras is bounded on the north by Mexico and on the west and south by Guatemala. It was settled in 1662 by woodcutters from Jamaica. An irregular form of local government continued until 1871, when it became a Crown colony; it was separated from Jamaica in 1884. The Governor is assisted by an Executive Council and by a partially elected Legislative Assembly.

The colony's economy is dependent upon timber and other forest exports. Agriculture has never been adequately developed. There are no railways, and road development is backward (about 135 mi. surfaced). Basic internal communications are by river. The Belize river is navigable, at least by light craft, for most of the year as far as the Guatemalan border, the other rivers for much shorter distances.

Most of the population are mestizos of Negro, native Indian and white descent.

The climate is subtropical, with maximum recorded temperature of 98°, and minimum of 50°. Rain falls mostly from May to February, and almost continuously from October through December.

Canada

(Member of Commonwealth of Nations)

Area (land only): 3,619,616 square miles.
Population (est. March 1, 1955): 15,482,000 (1951: British 48%; French 31%; German 4%; Ukrainian 3%; others 14%).
Density per square mile: 4.3.
Ruler: Queen Elizabeth II.
Governor General: Vincent Massey.
Prime Minister: Louis Stephen St. Laurent.
Principal cities (census 1951): Montreal, 1,021,520 (seaport); Toronto, 675,754 (manufacturing center); Vancouver, 344,833 (Pacific seaport); Winnipeg, 235,710 (grain); Hamilton, 208,321 (iron and steel), Ottawa, 202,045 (capital); Quebec, 164,016 (seaport): Edmonton, 159,631 (petroleum)· Calgary, 129,060 (farming).
Monetary unit: Canadian dollar.
Religions (census 1951): Roman Catholic 43%; United Church 20%; Anglican 15%; Presbyterian 6%; Baptist 4%; others 12%.

HISTORY. The Norse explorer Leif Ericsson probably reached the shores of Canada (Labrador or Nova Scotia) in A.D. 1000, but the history of the white man in the country actually began in 1497, when John Cabot, an Italian in the service of Henry VII of England, reached the shore of Newfoundland or Nova Scotia. Canada was taken for France in 1534 by Jacques Cartier. The actual settlement of New France, as it was then called, began in 1604 at Port Royal in what is now Nova Scotia; in 1608 Quebec was founded. France's colonization efforts were not very successful, but French explorers by the end of the 17th century had penetrated beyond the Great Lakes to the western prairies and south along the Mississippi to the Gulf of Mexico. Meanwhile, the English Hudson's Bay Company had been established in 1670. Because of the valuable fisheries and fur trade, a conflict developed between the French and English; in 1713, Newfoundland, Hudson Bay and Nova Scotia (Acadia) were lost to England.

During the Seven Years' War (1756–63), England extended its conquest, and the British general, Wolfe, won his famous victory over Montcalm outside Quebec (Sept. 13, 1759). The Treaty of Paris (1763) put Canada under English control.

At this time the population of Canada was almost entirely French, but in the next few decades thousands of British colonists emigrated to Canada from the British Isles and from the American colonies. Partly to placate the French who were concentrated in Quebec, Canada was divided into Upper (British) and Lower (French) Canada in 1791. In 1840 the two provinces again were joined under one government, and in 1849 the right of Canada to self-government was recognized. By the British North America Act of 1867, the Dominion of Canada was created through the confederation of Upper and Lower Canada, Nova Scotia and New Brunswick. Prince Edward Island joined the Dominion in 1873. In 1869 Canada had purchased from the Hudson's Bay Company the vast middle west (Rupert's Land) from which the provinces of Manitoba (1870), Alberta and Saskatchewan (1905) were later formed. In 1871 British Columbia joined the Dominion. The country was linked from coast to coast in 1885 by the Canadian Pacific Railway.

During the formative years between 1867 and 1896, the Conservative party led by Sir John A. Macdonald governed the country, except during the years 1873–78. In 1896 the Liberal party took over and under Sir Wilfrid Laurier, an eminent French Canadian, ruled until 1911. In World War I, more than 500,000 Canadian soldiers fought for the Allied cause. After the Treaty of Versailles, Canada, a full-fledged nation, was admitted to the League of Nations and appointed its own representatives in foreign countries. By the Statute of Westminster (1931) the British Dominions, including Canada, were formally declared to be partner nations with Britain, "equal in status, in no way subordinate to each other," and bound together only by allegiance to a common Crown. The Liberal party under W. L. Mackenzie King won the elections in 1935 and was returned to power in 1940 and 1945 (he had previously served as Prime Minister from 1921 to 1930, except for three months in 1926) On Nov. 15, 1948, King resigned and was succeeded by Louis Stephen St. Laurent, who was returned as Prime Minister in the national elections of June 27, 1949, and continued in office by elections held Aug. 10, 1953.

Newfoundland became Canada's tenth province on March 31, 1949, following a plebiscite held July 22, 1948, in which the people voted by a narrow margin to unite with Canada.

GOVERNMENT AND DEFENSE. Canada, a self-governing member of the Commonwealth of Nations, is a federal union of 10 provinces whose powers are laid down in the British North America Act of 1867. The executive powers nominally rest in the hands of the Governor General, who represents the Queen and is appointed by her upon the recommendation of the Canadian government.

Actually, the Governor General acts only with the advice of the Canadian Prime Minister and the members of the Cabinet, who at the same time sit in the federal Parliament. The Parliament has two houses: a Senate numbering 102 members appointed for life, and a House of Commons numbering 265 members apportioned according to provincial population. Elections are held at least every five years or whenever the party in power is voted down in the House of Commons or considers it expedient to appeal to the people. The

Canadian Governors General and Prime Ministers Since 1867

Term of office	Governor General
1867–1869	Viscount Monck
1869–1872	Baron Lisgar
1872–1878	Earl of Dufferin
1878–1883	Marquess of Lorne
1883–1888	Marquess of Lansdowne
1888–1893	Baron Stanley
1893–1898	Earl of Aberdeen
1898–1904	Earl of Minto
1904–1911	Earl Grey
1911–1916	Duke of Connaught
1916–1921	Duke of Devonshire
1921–1926	Viscount Byng
1926–1931	Viscount Willingdon
1931–1935	Earl of Bessborough
1935–1940	Baron Tweedsmuir
1940–1946	Earl of Athlone
1946–1952	Viscount Alexander
1952–	Vincent Massey

Term	Prime Minister	Party
1867–1873	Sir John A. Macdonald	Conservative
1873–1878	Alexander Mackenzie	Liberal
1878–1891	Sir John A. Macdonald	Conservative
1891–1892	Sir John J. Abbot	Conservative
1892–1894	Sir John S. D. Thompson	Conservative
1894–1896	Sir Mackenzie Bowell	Conservative
1896(3 mos)	Sir Charles Tupper	Conservative
1896–1911	Sir Wilfrid Laurier	Liberal
1911–1917	Sir Robert L. Borden	Conservative
1917–1920	Sir Robert L. Borden	Unionist
1920–1921	Arthur Meighen	Unionist-National, Conservative
1921–1926	W. L. Mackenzie King	Liberal
1926(3 mos)	Arthur Meighen	Conservative
1926–1930	W. L. Mackenzie King	Liberal
1930–1935	Richard B. Bennett	Conservative
1935–1948	W. L. Mackenzie King	Liberal
1948–	Louis Stephen St. Laurent	Liberal

Prime Minister is the leader of the majority party in the House of Commons. Laws must be passed by both houses of Parliament and signed by the Governor General in the Queen's name. Results of Parliamentary elections on Aug. 10, 1953, were as follows: Liberals, 170; Progressive Conservatives, 51; Co-operative Commonwealth Federation, 23; Social Credit, 15; Independents, 6.

The members of the Cabinet (June 1955) include Louis S. St. Laurent (Prime Minister), L. B. Pearson (External Affairs), George Marler (Transport), Milton Gregg (Labor), Stuart Garson (Justice, Attorney General), James Sinclair (Fisheries), C. D. Howe (Trade and Commerce, Defense Production), J. G. Gardiner (Agriculture), J. J. McCann (National Revenue), George Prudham (Mines and Technical Surveys), P. J. Martin (Health and Welfare), Alcide Côté (Postmaster General), W. E. Harris (Finance), Ralph Campney (Defense), Hugues Lapointe (Veterans Affairs), R. H. Winters (Public Works), W. Ross Macdonald (Solicitor General), Jean Lesage (Resources and Development), J. W. Pickersgill (Citizenship and Immigration), and Roch Pinard (Secretary of State).

The ten provincial governments are nominally headed by Lieutenant Governors appointed by the federal government, but the executive power in each actually is vested in a Cabinet headed by a Prime Minister, who is leader of the majority party. In nine of the ten provinces the legislature is composed of a one-house assembly elected by the people for 4 years. In Quebec there is a second chamber, the Legislative Council, composed of nominees of the Provincial Government.

Judicial System. The judicial system consists of a Supreme Court in Ottawa (established in 1875), with appellate jurisdiction, and a Supreme Court in each province as well as county courts with limited jurisdiction in most of the provinces. The Governor General in Council appoints the judges of these courts.

Defense. Canadian armed forces, consisting of the Army, Royal Canadian Air Force and the Royal Canadian Navy, are under the Ministry of National Defense. Conscription was in effect during World War II. Canadian casualties were 104,125, including 41,371 dead.

On Apr. 1, 1953, the strength of the army was 48,458; air force, 40,482; navy, 15,546. Increases were projected under a defense expansion program. Canadian troops and ships served in Korea. In Dec. 1954, the navy had in active service and reserve one light aircraft carrier, 2 cruisers, 11 destroyers, 51 frigates and escort vessels and numerous ancillary craft.

The Royal Canadian Mounted Police is the constabulary maintained by the federal government. Among its duties are the enforcement of smuggling laws, suppression of traffic in drugs, protection of government buildings and dockyards, and counter-subversive work.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Elementary schools in all provinces except Quebec are free, as is secondary education in most provinces. The supreme education authority in Quebec is a council of public instruction with two aides supervising the Roman Catholic and Protestant schools respectively. In the rest of the provinces the system is non-denominational, and education for the most part is compulsory for all children between the ages of 8 and 14. Of Canada's 28 universities, 7 are state-controlled and

CROP ACREAGE AND PRODUCTION

(in thousands, provisional figures)

	Acres		Bushels	
	1953	1954	1953	1954
Wheat	25,513	24,267	613,962	298,909
Oats	9,830	10,161	406,960	306,793
Barley	8,911	7,856	262,065	175,509
Rye	1,494	850	28,775	14,176
Corn	362	418	20,854	22,339

21 are independent of provincial control. Leading universities are Toronto, which belongs to the first group, and McGill (Montreal), which belongs to the second group.

Agriculture. Agriculture, including horticulture, fruit-growing and the raising of stock and poultry, is the largest single industry. Canada is one of the world's greatest wheat-exporting countries; production is concentrated in Manitoba, Saskatchewan and Alberta. The estimated value of field crops in 1954 was $1,137,670,000 (preliminary).

Stock raising and dairy farming have grown greatly since 1920. Ontario and Quebec are the most important dairying provinces. On June 1, 1954, Canada had 9,954,000 cattle, 5,141,000 hogs, 1,804,400 sheep and 993,300 horses. Dairy production in 1954 included: butter 156,333 short tons; milk 8,380,000 tons; cheese (cheddar), 41,064 tons. Wool production was 8,480,000 pounds, greasy basis.

Industry. Canadian manufactures rely mainly on domestic raw materials; growing industries which depend largely on materials imported in a raw or semi-finished state include the manufacture of automobiles, sugar and rubber goods as well as the iron and steel industry in Nova Scotia, Quebec and Ontario. The latter two provinces account for more than 80 per cent of all manufactures. The abundance of cheap water power is one of the chief factors in the growth of Canadian industry. Production of steel ingots and castings in 1954 was 3,194,122 short tons; pig iron, 2,213,433 tons; ferroalloys, 109,833 tons. In 1953 the value of factory shipments was $17,771,758,000 (preliminary); in 1952 there were 37,929 plants which employed 1,286,382 persons. The most important industries by value of output were pulp and paper, meatpacking, nonferrous-metals smelting and refining, sawmills, motor vehicles and petroleum products. Production of motor vehicles totalled 350,152 in 1954.

Trade. Canada is one of the great trading nations of the world. The bulk of its foreign commerce is in raw or semi-finished products.

Trade statistics (in millions of Canadian dollars):

Year	Imports	Exports	Re-exports
1952	4,030.5	4,301.1	54.9
1953	4,382.8	4,117.4	55.2
1954	4,093.2	3,881.3	65.6

In 1954, Canada's principal customers were the U. S. (60%), Britain (17%), Japan (2.5%), western Germany (2.2%) and Belgium (1.4%). Leading suppliers were the U. S. (72%), Britain (10%), Venezuela (4.1%), western Germany (1.9%) and Brazil (0.8%). The leading exports were newsprint (16%), wheat (10%), planks and boards (8%), wood pulp (7%) and aluminum and products (4%). Leading imports were machinery (non-farm) (9%), crude petroleum (5%), electrical apparatus (5%), automobile parts (4%) and farm implements and machinery (3%).

PROVINCES AND TERRITORIES

Province	Land area, sq. mi.	Population June 1954 Est.
Alberta	248,800	1,039,000
British Columbia	359,279	1,266,000
Manitoba	219,723	828,000
New Brunswick	27,473	547,000
Newfoundland	152,734	398,000
Nova Scotia	20,743	673,000
Ontario	363,282	5,046,000
Prince Edward Island	2,184	105,000
Quebec	523,860	4,388,000
Saskatchewan	237,975	878,000
Territories		
Northwest Territories	1,258,217	17,000
Yukon	205,346	10,000

Provinces	Capital	Prime Minister 1955
Alberta	Edmonton	Ernest C. Manning[1]
British Columbia	Victoria	William Bennett[1]
Manitoba	Winnipeg	D. L. Campbell[2]
New Brunswick	Fredericton	Hugh J. Flemming[3]
Newfoundland	St. John's	Joseph Smallwood[4]
Nova Scotia	Halifax	Angus L. Macdonald[4]
Ontario	Toronto	Leslie Frost[3]
Prince Edward Island	Charlottetown	A. W. Matheson[4]
Quebec	Quebec	Maurice Duplessis[5]
Saskatchewan	Regina	T. C. Douglas[6]
Territories		
Northwest Territories	Ottawa	R. G. Robertson*
Yukon	Dawson	W. G. Brown*

[1] Social Credit; [2] Liberal-Progressive; [3] Progressive Conservative; [4] Liberal; [5] Union Nationale; [6] Co-operative Commonwealth Federation. * Commissioner.

Communications. Because Canada's exports are to a large extent bulky raw materials, cheap water transportation is essential. The country's system of canals, especially those connecting the Great Lakes, forms an integral part of the inland communications system. Canal traffic amounted to 30,070,701 short tons in 1954; 17,514,258 tons of freight were carried on the Welland Canal alone.

Railway facilities have been improved in relation to the export of wheat from the prairie provinces and to the development of the mineral and wood pulp industries in northern Quebec and northern Ontario. About 90 per cent of the railway mileage of 43,000 (main-line track) is under the control of two systems, the government-owned Canadian National and the privately-owned Canadian Pacific. Canada's principal merchant marine lines are the Canadian Pacific, which operates a subsidiary ocean steamship company, and the Canadian National, which has minor steamship lines under its control. The merchant marine on Dec. 31, 1954, numbered 2,560 vessels (of over 100 tons), with tonnage of 2,024,180.

On Dec. 31, 1952, Canada had 181,306 miles of surfaced highways and 331,489 miles of nonsurfaced roads.

The Trans-Canada Air Lines, established in 1937, is controlled by the federal government. In 1954, Canadian airlines carried 2,790,443 revenue passengers and flew 1,066,807,690 passenger-miles. On Dec. 31, 1953, Canada had 3,606,407 telephones.

Finance. Recent data are as follows (in millions of Canadian dollars):

	1953–54*	1954–55*	1955–56†
Revenue	4,400.1	4,107.1	4,202.0
Expenditure	4,390.0	4,255.4	4,362.0

* Provisional. † Budget estimate.

The net public debt (gross debt less active assets) on Mar. 31, 1955, was reported at $11,264,200,000, compared to $11,151,600,000 on Mar. 31, 1954, $11,161,700,000 on Mar. 31, 1953, and $3,648,691,449 on Mar. 31, 1941.

NATURAL FEATURES AND RESOURCES; CLIMATE. Covering most of the northern part of the North American continent and with an area larger than that of the United States, Canada's topography is extremely diversified. The northeastern region, including most of Quebec, northern Ontario and Manitoba, and the Northwest Territories, with Hudson Bay in the center, is an important source of minerals, wood pulp and water power. In the east the mountainous maritime provinces have an irregular coast line on the Gulf of St. Lawrence and the Atlantic. The St. Lawrence plain, covering most of southern Quebec and Ontario, and the interior continental plain, covering southern Manitoba and Saskatchewan and most of Alberta, are the principal cultivable areas. They are separated by a forested plateau rising from Lakes Superior and Huron. Westward toward the Pacific, most of British Columbia, Yukon, and part of western Alberta are covered by parallel mountain ranges including the Rockies. The Pacific border of the coast range is ragged with fiords and channels. The highest point in Canada is Mt. Logan, 19,850 ft., located in the Yukon.

Average annual rainfalls at various cities are as follows, in inches: Calgary, 15.8; Winnipeg, 20.2; Victoria (B.C.), 30.9; Toronto, 31.3; Ottawa, 32.5; Quebec, 42.1.

Canada has an abundance of large and small lakes. In addition to the Great Lakes on the United States border, there are nine others which are more than 100 miles long and 35 which are more than 50 miles long.

The two principal river systems are the Mackenzie and the St. Lawrence. The St. Lawrence with its tributaries is navigable for over 1,900 miles and is the commercial artery of eastern Canada.

As most of the Canadian rivers have waterfalls on their courses they are of considerable importance as sources of power. Average monthly production of electricity in 1954 was 5,761,000,000 kwh.

Minerals. Canada's mineral resources are both rich and varied. Mining production in 1954 was valued at $1,444,196,460. Metals come mainly from two widely separated regions, the mountain ranges of the Pacific coast and the province of Ontario. Copper ore also exists in Quebec, Manitoba and Newfoundland. Production of petroleum centers in Alberta. There are important deposits of uranium in the Northwest Territories.

MAJOR MINERALS

Mineral	1953	1954*
Asbestos (tons)	911,226	926,883
Coal (tons)	15,900,673	14,825,000
Copper (lb.)	506,504,074	599,851,280
Gold (oz.)	4,055,723	4,279,852
Iron ore (tons)	6,509,818	7,280,256
Lead (lb.)	387,411,588	442,542,820
Nickel (lb.)	287,385,777	319,983,340
Petroleum (bbl.)	80,898,897	95,480,100
Silver (oz.)	28,299,335	31,541,757
Zinc† (tons)	224,400	194,400

* Provisional. † Smelter.

Forests and Fisheries. The total area of land covered by forests is estimated at 1,290,960 square miles, of which 435,000 are productive and accessible. Production of sawn lumber was estimated at 7,300,000,000 bd. ft. in 1954. The manufacture of pulp and paper is one of the leading industries. Newsprint production in 1954 was estimated at 5,984,207 short tons; exports were 5,521,530 tons, of which 4,866,649 tons went to the U. S.

Fishing, Canada's oldest industry, is carried on along the Atlantic and Pacific coasts and on the inland lakes. The most important fish are salmon, cod, herring, mackerel, lobsters, sardines, halibut, haddock, whitefish and trout. The total value of fishery production in 1953 (excluding Newfoundland) was $150,226,700; the catch totaled 13,464,980 cwt.

Climate. Canada has great variations of climate. South of the Gulf of St. Lawrence, the maritime provinces have an average temperature of 40° for the year and over 60° for the summer months. In Quebec and northern Ontario the winters are cold and the summers average from 60° to 65°. In southern Ontario the average summer temperature is 65°, with an occasional rise to 90°. The prairie provinces have a distinctly continental climate with comparatively short warm summers and long cold winters. The west coast has a climate similar to that of the southern coast of England. Northwest and northeast of Hudson Bay the climate is too severe for trees.

FALKLAND ISLANDS AND DEPENDENCIES—Status: Crown Colony.
Governor: O. R. Arthur.
Capital: Stanley (population 1,246).
Foreign trade (1954): exports, £6,270,559; imports, £3,172,912. Chief export: whale oil.

This sparsely inhabited Crown colony consists of a group of islands in the south Atlantic about 250 miles east of the South American mainland. Dependencies include all islands and Antarctic territory between 20° and 50° w. long., south of 50° s. lat., and between 50° and 80° w. long., south of 58° s. lat. The chief industry is sheep raising, and apart from the production of wool, hides and skins and tallow, there are no known resources. The whaling industry is carried on successfully from South Georgia Island; 281,107 barrels of whale oil were exported in 1954.

The islands were discovered by John Davis in 1592. East Falkland Island was claimed for France in 1764, and West Falkland Island for Britain the following year. The French settlement later passed to Spain, and in 1829 was colonized by Argentina. The Argentines were ejected by the British in 1833 and have since reasserted their claim to the islands many times. In 1914 the Battle of Falkland Islands was fought nearby, resulting in a British victory.

The climate is equable though relatively cold, with temperatures averaging about 47° in midsummer and 37° in midwinter.

JAMAICA AND DEPENDENCIES—Status: Colony.
Capital: Kingston (population 201,911).
Governor: Sir Hugh Foot.
Chief Minister: Norman W. Manley.
Foreign trade (1954)*: exports, £29,931,737 (55% to Britain); re-exports, £734,453; imports, £37,153,864 (41% from Britain). Chief exports: sugar (37%), bauxite, bananas, rum.
Agricultural products (1954): sugar (exports: 321,398 long tons), bananas (exports: 11,637,074 stems), rum, citrus fruits, ginger, coffee, pimento.
Mineral: bauxite (exports 1954: 1,752,219 long tons).
* Excluding dependencies.

Jamaica, the largest island in the British West Indies (4,470 sq. mi.), is eighty miles south of the eastern end of Cuba. Its island dependencies include the Turks and Caicos Islands (about 600 mi. N.E.), Cayman Islands (about 300 mi. N.W.) and two uninhabited cays. It was discovered by Columbus in 1494 and remained in Spanish possession until 1655, when it was taken by the British. According to the Constitution of Nov. 20, 1944, as amended in 1953, the Governor is assisted by a House of Representatives of 32 popularly elected members; a Legislative Council (upper house) of 15 members and an Executive Council of 10 members, of whom the Chief Minister is appointed by the Governor subject to the approval of the House.

Sites were leased for 99 years to the U. S. in 1940 for naval and air bases.

The colony's economy depends on agriculture, and about 200,000 acres are under cultivation. Sugar took the place of bananas as the chief crop during World War II. Jamaica is virtually the sole source of pimento.

Jamaica's favorable climate makes it attractive to tourists. Temperatures at Kingston range from about 71° to 88°, but are considerably cooler inland. The rainy seasons are in May and October; total fall is about 65 inches a year (33 at Kingston).

LEEWARD ISLANDS—Status: Colony.
Capital: St. John's (population 10,000).
Governor: Sir Kenneth Blackburne.
Foreign trade (1953): exports, BWI$19,350,000; imports, BWI$15,200,000. Chief export: sugar.
Agricultural products: sugar, cotton, coconuts, citrus fruits, tobacco.

The Leeward Islands constitute a federated group southeast of Puerto Rico; they are divided into four presidencies—Antigua (108 sq. mi.) and dependencies (63 sq. mi.); Virgin Islands (67 sq. mi.); St. Kitts (68 sq. mi.) and Nevis (50 sq. mi.) and dependency (34 sq. mi.); and Montserrat (33 sq. mi.). The whole federation has a nominated Executive Council and a partially elected Legislative Council. Each presidency also has a local administration. In 1940, the U. S. acquired a 99-year lease on sites for a naval and air base on Antigua. The islands are agricultural.

Temperatures average about 76° in January and 81° in August.

TRINIDAD AND TOBAGO—Status: Colony.
Capital: Port of Spain (population 111,350).
Governor: Sir Edward Beetham.
Foreign trade (1953): exports (including re-exports), BWI$257,023,984 (42% to Britain); imports, BWI$236,309,773 (38% from Britain). Chief exports: petroleum (72%), sugar (10%), cacao (4%).
Agricultural products: sugar (1953: 152,700 long tons), cacao, coconuts.
Minerals: petroleum (1953: 22,346,000 barrels), asphalt (143,236 long tons).

The islands of Trinidad and Tobago are 16 and 21 miles, respectively, off Venezuela just north of the Orinoco delta. Both were discovered by Columbus in 1498, and remained Spanish possessions until 1797, when the British took them. They are administered by a Governor, assisted by an Executive Council and a Legislative Council with unofficial elected majorities. In 1941 the United States was granted 99-year leases on the islands for naval and air bases covering a total of 25,000 acres.

The soil is rich for the growing of tropical products; sugar and cacao are the principal crops. Trinidad is one of the leading oil producers of the Commonwealth, and the world's most notable source of asphalt, found in Pitch Lake, thirty-eight miles southeast of Port of Spain. Port of Spain is the chief port, and a transshipment point for Orinoco trade. About a third of the population of the colony is East Indian. There are several oil refineries.

Trinidad's climate is tropical, with a mean annual temperature of 80°. The rainy season is from May to January (except October). Total annual rainfall is about 65 inches at Port of Spain and varies from 50 to 120 inches elsewhere throughout the colony.

WINDWARD ISLANDS—Status: Colony.
Capital: St. George's (population 5,755).
Governor: Colville M. Deverell.
Foreign trade (1953): exports, BWI$16,300,000; imports, BWI$20,600,000.
Agricultural products: arrrowroot (St. Vincent), nutmeg (Grenada), mace (Grenada), cacao.

These islands, four in number, form the southern portion of the Lesser Antilles in the Caribbean; they extend approximately 250 miles from the French colony of Guadeloupe on the north to the British colony of Trinidad on the south. Their total area of about 820 square miles divides as follows: Dominica, 304; St. Lucia, 233; St. Vincent, 150; Grenada, 133. The four units are not federated and have no common legislature or laws, although they do have a common Governor.

More than two-thirds of the inhabitants are Negroes, nearly one-third mulatto, and about 2 per cent white. Agriculture is the only industry. St. Vincent has a virtual monopoly on the world supply of arrowroot, and Grenada furnishes about 40 per cent of the world's nutmeg.

Climate is pleasant, although rainfall is heavy, particularly in summer, amounting in places to as much as 200 inches a year (80 at St. George's). The temperature in January averages 77°, in September, 80°.

ASIA

ADEN—Status: Colony and Protectorate.
Governor: Sir Tom Hickinbotham.
Foreign trade (1954): exports and reexports, £20,184,383; ships' stores and bunkers, £24,163,252; imports, £64,883,735.

The British colony and protectorate of Aden is situated on the volcanic southern tip of the Arabian peninsula, along the Gulf of Aden. The colony (port) of Aden was annexed to Britain in 1839 and was part of the Bombay Presidency until 1932, when it became a separate province with the Chief Commissioner responsible to the Indian government. In 1937 it was transferred from Indian to Imperial control as a Crown colony. It is administered by a Governor and Commander in Chief aided by an Executive Council. The 20-odd Sultans who rule their respective territories in the protectorate are responsible to him.

The island of Perim (5 sq. mi.), the Kuria Muria islands, and the island of Kamaran (22 sq. mi.) are attached administratively to Aden.

Aden colony is essentially a transshipment point and bunkering station and is also the commercial center for the Yemen and the African coast opposite. Aden airport is a station on the Khartoum-Karachi air route. Agriculture is unimportant except for some coffee and tobacco, and except for the large petroleum refinery of the British Petroleum Co. Ltd. (formerly Anglo-Iranian Oil Co.), which went into operation in 1954, manufacturing activity is limited to salt, cigarettes and dhows.

BAHREIN ISLANDS—Status: Protectorate and Sheikdom.
British Political Agent: J. W. Wall.

Tnese islands form an archipelago off Arabia's east coast and are nominally an independent sheikdom, ruled by Sheik Sir Salman bin Hamad al Khalifah, but are actually a protectorate of Great Britain, which is represented by a Political Agent. They are the center of the Persian Gulf pearl fisheries and the site of an airport on the London-Australia route. The concession for exploitation of petroleum deposits, discovered in 1932, is held by an affiliate of U. S.-owned interests. Output in 1954 was 10,991,754 barrels. Production at the Bahrein refinery in the same year was 7b,148,248 barrels. Agriculture is of some importance. Most of the trade of the Saudi Arabian provinces of Nejd and Hasa pass through Bahrein. Chief exports are rice, cotton goods, pearls, coffee and tea. The capital is Manama.

BORNEO

COLONY OF NORTH BORNEO—Status: Colony.
Capital: Jesselton (population 37,511).
Governor: Roland E. Turnbull.
Foreign trade (1954)*: exports, Mal. $77,232,516; imports, Mal. $74,336,416. Chief exports: rubber (31%), timber (23%).
Agricultural products: rubber (exports 1954: 18,240 metric tons), rice, copra.
Forest products: timber, cutch, rattans.
* Excluding transit trade.

The Colony of North Borneo, constituting the extreme northern portion of the island of Borneo, consists largely of highlands and occasional open valleys and plateaus. The territory was a British protectorate administered under a royal charter by the British North Borneo Company from 1881 until July 15, 1946, when it assumed the status of a Crown colony. It was occupied by Japanese troops from 1942 until 1945. Labuan (pop. 9,000; area, 30 sq. mi.), a small island off the North Borneo coast, was transferred from the jurisdiction of the Straits Settlements to that of North Borneo in 1946.

The population is comprised largely of aboriginal tribesmen living on a very primitive level of culture and social organization. Mineral resources are believed to be considerable, but the colony's income is based on agricultural and jungle produce.

The climate of North Borneo is tropical, with a mean annual temperature range of only 3°, although extremes of 64° and 91° have been recorded. The total rainfall varies between 60 and 180 inches annually and is heaviest in the last three months.

BRUNEI—Status: Protectorate.
Capital: Brunei (population 16,000).
Sultan: Omar Ali Saifuddin.
British Resident: J. O. Gilbert.
Foreign trade (1954): exports, Mal. $273,476,507; imports, Mal. $111,666,394. Chief export: petroleum (99%).
Agricultural products: rice, rubber.
Mineral: petroleum (1954: 4,750,000 long tons).

Brunei lies on the northwestern coast of Borneo, entirely surrounded by Sarawak. It was placed under British protection in 1888, and in 1906 a treaty was concluded whereby the native Sultan yielded administration of the state to a British Resident. The Governor of Sarawak was appointed High Commissioner for Brunei in 1948. Japanese occupied Brunei in 1942–45.

Most of the inhabitants are Malays. The bulk of the population lives in and around the capital, situated on the Brunei River 9 miles from its mouth. The interior is largely forested and contains rich timber. All petroleum is exported to Sarawak for refining.

Brunei's climate is comparable to that of North Borneo, except that the wet season is longer, often lasting until March.

SARAWAK—Status: Colony.
Capital: Kuching (population 37,949).
Governor: Sir Anthony F. Abell.
Foreign trade (1954): exports, Mal. $425,984,000; imports, Mal. $397,517,000. Chief exports: petroleum (69%), pepper (10%).
Agricultural products: rubber (exports 1954: 23,000 long tons), pepper, copra, rice.
Minerals: petroleum, gold, silver, coal.

Sarawak extends along the northwestern coast of Borneo for about 500 miles. In 1841 part of the present territory was granted by the Sultan of Brunei to Sir James Brooke. The state, enlarged by additional concessions made between 1861 and 1905, continued to be ruled by members of the Brooke family until the Japanese occupation in Dec. 1941. A British protectorate since 1888, Sarawak became a Crown colony July 15, 1946, through agreement between the British government and the then ruling Rajah, Sir Charles Vyner Brooke.

The colony is mountainous and very well watered; inland communication is largely by water. Most of the inhabitants are Malays, Dyaks and Chinese. The principal mineral is petroleum, which was discovered at Miri in 1909 and subsequently worked by Sarawak Oilfields, Ltd. A large proportion of the petroleum exports reflects petroleum imported from Brunei and refined in Sarawak. There are also important forest resources. Under the enlightened rule of the Brookes, Sarawak became a highly organized community.

Sarawak's climate is healthful; the temperature seldom rises above 90° and falls to 70° at night. Average annual rainfall at Kuching is 160 inches.

Ceylon

(Member of Commonwealth of Nations)
Area: 25,332 square miles.
Population (est. July 1, 1954): 8,385,000 (1953: Sinhalese, 69%; Tamil, 21%; Moors, 6%; Burghers and Eurasians, .5%; Europeans [6,909] and others, 3.5%).
Density per square mile: 331.0.
Ruler: Queen Elizabeth II.
Governor General: Sir Oliver Goonetilleke.
Prime Minister: Sir John Kotelawala.
Principal cities (census 1953): Colombo, 424,816 (capital); Jaffna, 76,664 (fibers, tobacco); Kandy, 57,013 (tea); Galle, 55,825 (seaport).
Monetary unit: Ceylonese rupee.
Languages: English, Sinhalese, Tamil.
Religions (est.): Buddhism, 60%; Hinduism, 20%; Christianity, 10%; Mohammedanism and others, 10%.

HISTORY. The island of Ceylon lies in the Indian Ocean 12 miles southeast of the southern tip of India. Known to the Greeks and Romans as Taprobane and to Mohammedan seamen as Serendib, it is reputed to have been invaded from India in 504 B.C. by Vijaya, the first Sinhalese

King. Buddhism was introduced in the third century B.C. In subsequent centuries the island was invaded and occupied several times by Indian princes.

Ceylon was visited in 1505 by the Portuguese, who found the island divided into seven native kingdoms. The Portuguese settlers were ousted in the middle of the 17th century by the Dutch, who in turn were defeated by an English force in 1796. Ceylon became a Crown colony in 1796, and was formally ceded to England by the treaty of Amiens in 1802.

The Donoughmore Constitution of 1931 vested control over most local affairs in a State Council, which had an elected majority. The arrangement proved generally unacceptable, and after World War II a commission headed by Lord Soulbury drafted a new Constitution. Elections held in Aug. and Sept., 1947, were won by the United Nationalists, a center group. The Ceylon Independence Act received royal assent on Dec. 10, 1947, and on Feb. 4, 1948, Ceylon became a full-fledged, self-governing dominion, with Stephen Senanayake as Prime Minister. On his death, Mar. 22, 1952, his son Dudley took office. The latter resigned on account of ill health on Oct. 12, 1953, and was succeeded by Sir John Kotelawala.

GOVERNMENT. Under the 1946 Constitution, Ceylon's government is headed by the Crown-appointed Governor General, who is advised by a Council of Ministers headed by the Prime Minister. The bicameral Parliament consists of a House of Representatives of 101 members (95 elected by full adult suffrage), and a Senate composed of 15 elected and 15 appointed members.

Elections of May 1952 returned to the House of Representatives 54 United Nationalists, 11 Independents, 3 Communists, 4 Tamil Congress, 2 Federalists, 1 Republican, 1 Labour and 19 others.

Close relations in defense matters are maintained with the United Kingdom under terms of the 1947 defense agreement, which permits the stationing of British troops on the island. The Royal Navy has an extensive base at Trincomalee.

SOCIAL AND ECONOMIC CONDITIONS. Free education is available in public schools from kindergarten to university. The illiteracy rate in 1946 (5 years and over) was 42.2%. In May 1952, there were 4,843 Sinhalese and Tamil schools with 1,126,110 pupils, and 657 English and bilingual schools with 287,646 pupils. The University of Ceylon (founded in 1942) had 2,232 pupils in 1952–53.

Ceylon is heavily dependent on food imports, particularly rice, the staple food. A large part of the cultivated land (25% of the total area) is devoted to the chief export crops—tea (1954: 366,738,270 lb.), rubber (1954: 93,935 long tons) and coconut products, all of which are grown for the most part on plantations. Other crops include rice (1954: 428,400 tons paddy), fruits, cinnamon and citronella. In 1954, there were 1,276,178 cattle, 699,190 buffalo and 542,824 goats.

Recent foreign-trade data are as follows (in millions of Ceylonese rupees):

	1952	1953	1954
Exports	1,502	1,568	1,809
Imports	1,705	1,610	1,397

Chief exports by value in 1954 were tea (62%), rubber (15%) and coconut oil (6%). Leading customers were Britain (27%), China (12%) and Australia (9%); leading suppliers, Britain (21%), India (14%) and China (11%).

Ceylon is well served by highways and the government railway, which total 18,560 and 894 miles, respectively. A fast ferry connects railheads in India and Ceylon.

NATURAL FEATURES AND RESOURCES; CLIMATE. Most of the island is flat, but mountains in the south rise to 8,000 feet. The island extends to a maximum of 270 miles north and south, and 140 miles east and west. There are numerous rivers, the longest of which is the Mahaweli-Ganga (206 miles).

Mineral resources include graphite (plumbago) (1954 exports: 7,728 long tons), gem stones, mica, magnesite and vanadium; uranium deposits have been reported.

A distinctive feature of Ceylon's climate is the monsoon, which appears in May and in October–November. Annual rainfall varies from 40 inches in the northeast to more than 200 in the southwest. The mean annual temperature at Colombo is 80.5°.

CYPRUS—Status: Colony.
Capital: Nicosia (pop. 1954: 42,000).
Governor: Sir Robert Armitage.
Foreign trade (1954): exports (including re-exports), £16,027,585; (35% to Germany, 35% to Britain); imports, £23,570,656 (47% from Britain). Chief exports: pyrites (29%), cupreous concentrates (24%).
Agricultural products: barley, wheat, potatoes, wine, fruit.
Minerals: copper ore (concentrates), pyrite ore.

Cyprus, third largest island in the Mediterranean, is roughly equidistant from Asia Minor to the north and Syria to the east. The site of early Phoenician and Greek colonies, it passed in 1571 from the rule of Venice to that of the Ottoman Empire, under which it remained until 1878, when it was ceded to Great Britain for administrative purposes. On the outbreak of hostilities with Turkey in World War I (Nov. 5, 1914), the island was formally annexed to Great Britain.

The Governor is advised by a nominated Executive Council, but he alone possesses the lawmaking power.

The people are mainly Greeks and Turks, although there is an Armenian colony and a distinct, though small, Latin colony. More than 80 per cent of the population is Christian. Agriculture is the principal industry. Sponge fishing is also important, as well as copper mining.

The mean annual temperature is about 69°; annual rainfall averages about 19 inches.

HONG KONG—Status: Colony.
Capital: Victoria (population 767,000).
Governor: Sir Alexander Grantham.
Foreign trade (1953): exports (in Hong Kong dollars), $2,733,000,000; imports, $3,872,000,000. Chief export: textiles.
Agricultural products: rice, sugar cane.
Major industries: shipbuilding, rope making, cement, sugar refining, textiles.

The colony of Hong Kong comprises the island of Hong Kong (32 sq. mi.), Stonecutters' Island, and the Kowloon peninsula and the New Territories on the adjoining mainland. The island of Hong Kong, located at the mouth of the Canton River about 90 miles southeast of Canton, was ceded to Britain in 1841.

Stonecutters' Island and Kowloon were annexed in 1860, and the New Territories, which are mainly agricultural lands, were leased from China in 1898 for 99 years. Hong Kong was attacked by Japanese troops Dec. 7, 1941, and surrendered the following Christmas Day. It remained under the occupation of the Japanese until Sept., 1945.

Possessing an excellent natural harbor 17 miles in extent, the only safe deep-sea anchorage between Shanghai and Indo-China, Hong Kong is the entrepôt for trade throughout southern China and the western Pacific.

The cities of Victoria and Kowloon contain the greater part of the population, which is overwhelmingly Chinese. Besides those Chinese engaged in agriculture or industry, a large population lives in sampans or junks either in Victoria Harbour or neighboring bays, supporting itself by fishing or by laboring on the wharves.

Hong Kong has an agreeable climate, although violent typhoons sometimes descend upon the Colony. The average annual temperature is 72°, ranging from 59° in February to 82° in July. Rainfall is about 85 inches a year.

MALAYAN FEDERATION and SINGAPORE—Status: Protectorates and Crown Colony.
Capital: Singapore (population 1947: 441,885).
Federation Capital: Kuala Lumpur (population 1947: 176,195).
Commissioner General in Southeast Asia: Sir Robert Scott.
High Commissioner of Malayan Federation: Sir Donald MacGillivray.
Governor of Singapore: Sir Robert Black.
Foreign trade (1954): exports, Mal. $2,985,895,135 (15% to the U. S., 15% to Britain); imports, Mal. $3,139,299,363 (29% from Indonesia). Chief exports: rubber (44%), tin (14%).
Agricultural products: rubber (1954: 584,390 long tons), rice (clean) (408,170 tons), coconuts.
Minerals: tin (1954: 71,163 long tons), iron ore (1,212,780 tons), coal (224,540 tons), tungsten, bauxite, manganese ore.
Forest products: timber, damar, jelutong.

The Federation consists of semi-independent states occupying most of the Malay peninsula and the island of Singapore off the peninsula's southern tip, together with several smaller islands. The native states were brought under British administration by a process of commercial and political exploitation in the late 19th and early 20th centuries. Singapore, founded in 1819 by Sir Stamford Raffles, had been developed into the principal British naval base in the Far East prior to World War II. Japanese troops invaded the Malayan States in Dec. 1941, and captured Singapore Feb. 15, 1942.

The Malayan Federation was established in 1948 to replace the Malayan Union, which was created in 1946. It comprises the British settlements of Malacca and Penang and the protected states of Johore, Kedah, Kelantan, Negri Sembilan, Pahang, Perak, Perlis, Selangor and Trengganu. Under the High Commissioner, to whom power is delegated jointly by the Queen and the Malay rulers, there is a Federal Executive Council and a Federal Legislative Council.

British influence in the affairs of the nine native states is limited to defense and foreign affairs. The Sultan of each state has undertaken to promulgate a written Constitution for his state.

Singapore, comprising the island of Singapore and Christmas Island, a dependency, became a separate Crown colony on Apr. 1, 1946, when the former colony of the Straits Settlements was dissolved. Penang and Malacca were transferred to the Malayan Union, and the small island of Labuan to North Borneo. The Cocos or Keeling Islands were transferred to Australian control in 1951.

The Commissioner General in Southeast Asia is charged with the coordination of administration in the Malayan Federation, Singapore, Sarawak, North Borneo and Brunei.

Since June, 1948, a considerable number of British and other troops have had to be stationed in the area to cope with Communist-led guerrillas. About 50 per cent of the population of the Federation is

Malayan and 38 per cent Chinese; about 70 er cent of the population is Chinese.

Rubber and tin form the basis of the rea's prosperity, and the Federation is the orld's leading producer of tin ore. Over 60 er cent of the cultivable area is devoted o the growing of rubber.

The climate of Singapore, principal city f the area, is hot and humid, with prac-ically no seasonal change; mean average emperature is 80°. The total yearly rain-all is about 95 inches.

India (Republic)

Area: 1,174,116 square miles (excluding Kashmir, 82,258 square miles).
Population (census 1951): 356,691,760* Hindu, 83%; Moslem, 10%; Christian, 3%; Sikh, 1.7%; others [Jain, Buddhist, oroastrian, Jewish, etc.], 3%.
Density per square mile: 303.8.†
President: Rajendra Prasad.
Prime Minister: Pandit Jawaharlal Nehru.
Principal cities (census 1951): Bombay, 839,270 (seaport; cotton and textiles); alcutta, 2,548,677 (chief port); Madras, 416,056 (seaport); Hyderabad, 1,085,722 trade center); Delhi, 914,973 (manufac-uring); Ahmedabad, 788,333 (manufactur-ng); Bangalore, 778,977 (manufacturing); Kanpur (Cawnpore), 705,383 (textiles); New Delhi, 276,314 (capital).
Monetary unit: Rupee.
Principal languages: Hindi (official), nglish‡, Bengali, Assamese, Gujarati, Kannada, Kashmiri, Malayalam, Marathi, Oriya Punjabi, Sanskrit, Tamil, Telugu, Urdu.

* Excluding Kashmir (est. 1951: 4,400,000) and tribal reas of Assam (est. 1954: 560,000). † Excluding Kashmir. ‡ To be used for all official purposes until 965.

HISTORY. The Republic of India is one of he largest, richest and most populous na-ions in the world. A sovereign republic within the Commonwealth of Nations, it ontains most of pre-1947 India's indus-rial wealth and natural resources.

The Aryans or Hindus who invaded In-ia between 2400 and 1500 B.C. from the orthwest found a land already well civi-ized. Buddhism was founded in the 6th entury B.C. and spread through northern ndia. The first exact date in Indian his-ory is 327 B.C., when Alexander the Great nvaded India. Meanwhile India continued o be divided into rival states.

In 1526, Mohammedan invaders founded he great Mogul empire, centered on Delhi, which lasted at least in name until 1857. Akbar the Great (1542–1605) strengthened his empire and became the ruler of a reater portion of India than had ever efore acknowledged the suzerainty of one nan. The long reign of his great-grandson, Aurangzeb (1658–1707) represents both the ulmination of Mogul power and the be-inning of its decay.

Vasco da Gama, the Portuguese explorer, visited India first in 1498, and for the next hundred years the Portuguese had a virtual monopoly on trade with the subcontinent. Meanwhile, the English founded the East India Company, which set up its first factory at Surat in 1612 and began expanding its influence, fighting against the Indian rulers and the French, Dutch and Portuguese traders simultaneously.

Bombay, taken from the Portuguese, became the seat of English rule in 1687. The defeat of French and Mohammedan armies by Lord Clive in the decade ending in 1760 laid the foundation of the British Empire in India. From then until 1858, when the administration of India was formally transferred to the British Crown following the great mutiny of native troops in 1857, the East India Company was constantly occupied with the suppression of native uprisings and the extension of British rule.

After World War I, in which the Indian states sent more than 1,000,000 troops to fight beside the Allies, Indian nationalist unrest rose to new heights under the leadership of a little Hindu lawyer, Mohandas K. Gandhi, called Mahatma Gandhi. His tactics, of a politico-religious nature, called for non-violent revolts against British authority. He soon became the leading spirit of the all-India Congress party, which was the spearhead of Indian revolt against British rule. In 1919 the British gave added responsibility to Indian officials, and by an act passed in 1935 India was given a federal form of government and a measure of self-rule.

During the 1940's the policy of both the wartime coalition government of Britain and later the Labour government envisaged an unpartitioned India as a self-governing federal dominion including both British India and the native states. In 1942, with the Japanese pressing hard on the eastern borders of India, the British war Cabinet decided to send Sir Stafford Cripps to India to try to reach a political settlement with nationalist leaders. The mission failed. Shortly thereafter the Congress party took the position that the British must quit India. In August 1942, fearing mass civil disobedience, the government of India carried out widespread arrests of Congress leaders including Gandhi.

Gandhi was released in May 1944, and other leaders later. Negotiations for a settlement were resumed and they proved fruitless until the British Labour government sent a mission in 1946 which obtained the agreement of the Congress party and Mohammed Ali Jinnah's Moslem League to a long-term plan for a Constitution based on three separate groups of provinces with a minimal center. However, agreement was not reached on an interim government and the Moslem League later reverted to its position of unconditional

partition. Finally, in February 1947, the Labour government announced its determination to transfer power to "responsible Indian hands" by June 1948, even if a Constitution had not been worked out.

With the appointment at the same time of Lord Mountbatten as Governor General, events moved swiftly. By early June 1947, agreement was reached on the partitioning of India along religious lines (a plan previously opposed by the predominant Hindus and by Britain) and on the splitting of the provinces of Bengal and the Punjab, which the Moslems had claimed in their entirety.

The Indian Independence Act, passed quickly by both houses of the British Parliament, received royal assent on July 18, 1947, and on Aug. 15 the Indian Empire, united under British rule for almost a century, passed into history.

Under the leadership of Pandit Jawaharlal Nehru, the new nation quickly took its place in world councils as a self-governing state. At home the nation pursued a policy of integration and reorganization designed to place effective power in the hands of the central government, which was faced at the outset by widespread communal rioting climaxed by the assassination of Gandhi, the great Hindu spiritual leader, on Jan. 30, 1948.

As a neutral nation India played an important part in international affairs in the 1950s.

GOVERNMENT AND DEFENSE. India is now a sovereign republic within the Commonwealth of Nations—a status approved by the other Commonwealth nations at London in April 1949, on the condition that India recognize the King as head of the Commonwealth. Under the Constitution adopted by the Constituent Assembly on Nov. 26, 1949, India has a parliamentary type of government. The bicameral Parliament is composed of the Council of States (216 members—204 chosen by constituent states and 12 by the President) and the House of the People (497 members—489 elected directly by popular vote for 5-year terms and 8 chosen by the President). The President is elected for a five-year term by an electoral college composed of Parliament and the elected members of the state legislatures. The Cabinet, headed by the Prime Minister, administers the government and is collectively responsible to the House of the People. The constituent states have their own Governors and popularly elected legislatures.

In national elections held between Oct. 1951 and Feb. 1952, the Congress party won 363 of the 489 elective seats in the House of the People, Independents 36, Communists and allies 27, Socialists 12, others 51.

Native States. Most of the 560-odd native states and subdivisions of pre-1947 India acceded to the new nation, and the central government pursued a vigorous policy of integration. This took three forms: (1) merger into adjacent provinces, (2) conversion into centrally administered areas and (3) grouping into unions of states. The unions of states and Hyderabad, Mysore and Kashmir were assimilated to the level of provinces, with fully representative forms of government, subject to the power of the central government.

POLITICAL SUBDIVISIONS OF REPUBLIC OF INDIA, 1955

	Area, sq. mi. (approx.)	Population, census 1951
Provinces (Governors' States)		
Andhra	67,000	21,282,000
Assam	85,012	9,043,707*
Bihar	70,330	40,225,947
Bombay	111,434	35,956,150
Madhya Pradesh	130,272	21,247,533
Madras	60,790	35,794,002
Orissa	60,136	14,645,946
Punjab	37,378	12,641,205
Uttar Pradesh	113,409	63,215,742
West Bengal†	30,775	24,810,308
States and Unions of States (Rajpramukh States)		
Hyderabad	82,168	18,655,108
Madhya Bharat	46,478	7,954,154
Mysore	29,489	9,074,972
Patiala and East Punjab (Pepsu)	10,078	3,493,685
Rajasthan	130,207	15,290,797
Saurashtra	21,451	4,137,359
Travancore-Cochin	9,144	9,280,425
Centrally Administered Areas (Chief Commissioners' States)		
Ajmer	2,417	693,372
Bhopal	6,878	836,474
Coorg	1,586	229,405
Delhi	578	1,744,072
Himachal Pradesh	10,904	1,109,466
Kutch	16,724	567,606
Manipur	8,628	577,635
Tripura	4,032	639,029
Vindhya Pradesh	23,603	3,574,690
Chief Commissioner's Territory		
Andaman and Nicobar Islands	3,215	30,971

* Excluding tribal areas with estimated population of 560,000. † Excluding centrally administered Chandernagore (area 4 sq. mi., population, 1948 est., 44,800) transferred from France to India in May 1950.

The status of the large princely state of ammu and Kashmir on the northwest ontier is in dispute with Pakistan. It is 5 per cent Moslem, but its Hindu ruling rince acceded to India, which took over lministration following invasion by Mos-m troops in late 1947. The U. N. Security ouncil voted on April 21, 1948, to hold a ebiscite in the area, but, largely be-ause of mutual distrust between India nd Pakistan, arrangements have not been ade for holding it.

efense. The President has supreme com-and of the armed forces, and the Defense inister is responsible to Parliament for ie army, the navy and the air force, each nder its own chief of staff and commander chief.

The army has three territorial commands -southern, eastern and western—with eadquarters at Poona, Ranchi and Delhi, spectively. In Dec. 1954, the navy had 2 uisers, 6 destroyers, 5 frigates and escort aft and other smaller craft.

OCIAL AND ECONOMIC CONDITIONS. *ducation.* Expansion and modernization of l branches of education is under way, with nphasis on technological training. About 3.4% of the population was illiterate in 951. In 1950 there were 210,354 recognized rimary schools with 18,384,207 pupils; 0,947 secondary schools, 5,229,204 pupils; 31 teachers' training colleges, 69,480 stu-ents; 855 institutions for higher learn-ng (including 32 universities), 396,528 tudents. English is being replaced as the nguage of instruction by Indian lan-uages.

griculture. More than 200,000,000 acres are nder cultivation, but India probably ill continue to be a food-deficit area for everal years. Rice is the staple food crop; otton, tea and jute are important cash rops. Production estimates for the crop ear 1953–54 included rice, 41,268,000 metric ons (paddy); wheat, 7,501,000 tons; bar-ey, 2,895,000 tons; tea, 275,700 tons; se-ame, 539,000 tons; cottonseed, 1,399,000 ons; cotton (lint), 700,000 tons; jute, 67,000 tons.

Livestock in 1951 included 42,584,000 uffalo, 130,298,000 other domestic cattle, 9,975,000 sheep, 47,121,000 goats and ,173,000 pigs.

Manufacturing. The republic retained al-most all of the industrial facilities of Brit-sh India and is among the ten leading ndustrial nations of the world. Cotton nd jute manufacturing are the two largest ndustrial activities, the former concen-rated largely in Bombay and the latter in alcutta. The provinces of West Bengal nd Bombay are the two most important reas of industrial concentration, with adras ranking third in importance. In 954, cotton mills produced 706,800 metric ons of cotton yarn and 4,584,000,000 meters of cloth. Processing of sugar is of great importance; raw sugar production totaled 1,451,000 metric tons in the 1953–54 season plus 3,360,000 tons of *cane gur* for direct consumption. About 90 per cent of the world's supply of jute is processed in the republic. The iron and steel industry is being expanded; in 1954, 1,968,000 metric tons of pig iron and ferroalloys and 1,704,-000 tons of raw steel were produced. Pro-duction of silk and woolen goods, vegetable oils, coir yarn, paper, matches, salt, cement, leather and shoes, and heavy chemicals is also important.

Communications. Railway mileage totaled 34,119 in 1953, almost all of it under government control. The chief ports are Bombay and Calcutta. According to *Lloyd's Register,* the merchant marine had 204 steamers and motor ships (100 tons and over) aggregating 512,706 gross tons on June 30, 1954. Roads in 1953 totaled 255,-000 miles. In 1954, airlines flew approxi-mately 273,500,000 passenger miles.

Trade. India is primarily an importer of finished manufactured goods and an ex-porter of raw materials and semimanufac-tured products. Recent trade data are as follows (in millions of rupees):

	1951–52	1952–53	1953–54*
Exports	7,330	5,774	5,310
Imports	9,547	6,699	5,720

* Provisional figures.

The leading customers in 1953–54 were Britain (28%), other sterling area (25%) and the U. S. (15%). Leading suppliers in-cluded Britain (25%), other sterling area (24%) and the U. S. (16%). Leading ex-ports were jute and bagging (21%), tea (19%) and cotton manufactures (8%). Main imports included cotton and waste, machinery, grain, pulse and flour.

Finance. The 1955–56 budget provided for ordinary revenue of Rs.4,690,000,000 and ex-penditure of Rs.4,990,000,000. Capital ex-penditure was estimated at Rs.2,230,000,000. The estimated over-all deficit was Rs.3,400,-000,000. The public debt on March 31, 1953, was Rs.28,359,000,000, most of which was held internally.

NATURAL FEATURES AND RESOURCES; CLIMATE. The Indian republic contains a large part of the great Indo-Gangetic plain which extends from the Bay of Ben-gal on the east to the Afghan frontier and the Arabian Sea on the west. This plain is the richest and most densely settled part of the subcontinent, containing more than half the population. Another distinct nat-ural region is the Deccan, a plateau of 2,000 to 3,000 feet elevation, occupying the southern or peninsular portion of the sub-continent. In several regions, the Deccan is quite mountainous.

Forming a part of the republic are sev-eral groups of islands—the Laccadives (14

islands) in the Arabian Sea; the Andamans (204 islands) and the Nicobars (19 islands) in the Bay of Bengal.

India's three great river systems, all rising in the Himalayas, have extensive deltas. The Ganges flows south and then east for 1,540 miles across the northern plain to the Bay of Bengal; part of its delta, which begins 220 miles from the sea, is within the republic. The Indus, starting in Tibet, flows northwest for several hundred miles in Kashmir before turning southwest toward the Arabian Sea; it is important for irrigation in Pakistan. The Brahmaputra, also rising in Tibet, flows eastward first through India and then south into Pakistan and the Bay of Bengal.

Minerals. The republic has rich mineral resources. The most valuable mineral is coal, deposited throughout most of the nation; production in 1954 was approximately 37,350,000 metric tons. Manganese ore (about 1,750,000 tons in 1953) is mined in Madhya Pradesh, and gold in Orissa.

Assam and the Punjab produce oil. Other minerals include iron ore, monazite, diamonds, magnesite, uranium, zircon, silver, graphite, gypsum, tungsten ore and sapphires.

Climate. India's climate varies from temperate in the north to tropical in the south, where temperatures are almost constant the year around. During the November–February cool season, northern India has a climate like that of the Riviera. From March to June steadily rising temperatures reach a peak sometimes as high as 115°, and then comes the southwest monsoon. Rainfall is heavy, averaging 50 to 60 inches in Assam and reaching 500 inches in the Assamese Garo hills.

Pakistan

(Member of Commonwealth of Nations)

Area: 364,737 square miles.

Population (census 1951): 75,635,496 (Moslem, 86%; Hindu, 13%; others, 1%).

Density per square mile: 207.4.

Governor General: Gen. Iskander Mirza (acting).

Prime Minister: Chaudry Mohammed Ali.

Principal cities (census 1951): Karachi, 1,006,416 (capital); Lahore, 849,333 (capital, West Pakistan); Dacca, 273,459 (capital, East Pakistan); Hyderabad, 241,801 (capital, Sind); Rawalpindi, 236,977 (military center).

Monetary unit: Pakistani rupee.

Principal languages: English, Bengali, Punjabi, Urdu, Hindi.

HISTORY. Pakistan, a self-governing member of the Commonwealth of Nations and one of the two successor states to British India, is the world's largest and most important Moslem state.

The history of Pakistan prior to 1947 is principally that of India. (*See* India.) Its creation was to a large extent attributable to Mohammed Ali Jinnah, who envisaged and pressed for the idea of a predominantly Moslem state carved out of the Moslem areas of British India. Upon the transfer of power on Aug. 15, 1947, Jinnah became the first Governor General; he died on Sept. 11, 1948, and was succeeded by Khwaja Nazimuddin. The latter became Prime Minister upon the assassination of Liaquat Ali Khan, Oct. 16, 1951; he was replaced on Apr. 17, 1953, by Mohammed Ali.

GOVERNMENT AND DEFENSE. Pakistan has a provisional government (a Constitution has not yet been adopted). The Governor General represents the Crown and is advised by the Prime Minister and his Cabinet. On Oct. 24, 1954, Governor General Ghulam Mohammed assumed emergency powers and dissolved the constituent assembly which had been functioning since partition. A new assembly with interim legislative powers was to be elected.

Provinces. Pakistan consists of two provinces—West and East Pakistan—approximately 1,000 miles apart, separated by the republic of India. The province of West Pakistan consists of Sind, Baluchistan, the former North-West Frontier Province, western Punjab, the princely state of Bahawalpur and a few other small native states. The province of East Pakistan consists of eastern Bengal and the Sylhet district of Assam. Pakistan contains large communal minorities of Hindus and Sikhs. Over half the nation's population is concentrated in East Pakistan, which contains only 15 per cent of the total area.

Defense. In the division of the British Indian Army, Pakistan received 20 regiments, which, with levies and contributions of native princes, made a total army strength of about 250,000. The Royal Pakistan Navy in 1954 had a force of 4 destroyers, 2 sloops, 2 frigates, 6 mine sweepers and several smaller vessels. The air force has 1 transport and 2 fighter squadrons.

SOCIAL AND ECONOMIC CONDITIONS. Literacy was barely 13.2 per cent, according to the 1951 census. In 1951 there were 40,295 primary schools with 3,212,312 pupils, 6,486 secondary schools with 1,164,142 pupils and 5 universities.

Pakistan, poor in industry and natural resources, is mainly an agricultural nation. Upwards of 45,000,000 acres are under cultivation, almost half of which are irrigated largely in Sind and west Punjab in western Pakistan. The Punjab contains important wheat-growing areas, and eastern Pakistan is rich in jute, rice and tea. Production estimates for the crop year 1953–54 included wheat, 2,477,000 metric tons; rice, 13,946,000 tons (paddy); maize, 444,000 tons; barley, 114,000 tons; tea, 25,300 tons; jute, 454,000 tons; cotton (lint), 255,000

tons; cottonseed, 510,000 tons. In 1951–52 there were 6,570,000 sheep, 4,980,000 buffalo, 24,069,000 cattle, 494,000 horses and (1947–48) 454,000 camels.

Pakistan is an exporter of agricultural products and an importer of manufactured commodities. Recent statistics are as follows (in millions of Pakistani rupees):

	1952	1953	1954
Exports	1,762	1,453	1,187
Imports	2,022	1,154	1,074

Chief exports in 1954 were jute (46%) and raw cotton (29%). Leading customers in 1953 were Japan (20%), Britain (19%), India (7%) and Germany (7%). The U. S. and Britain were the principal suppliers. Leading imports included wheat, machinery, mineral oils and cotton twist and yarn.

Development of a unified nation is retarded by the fact that communication between east and west Pakistan is possible only through a thousand miles of Indian territory or by a long sea voyage. Railway mileage (1953) totaled 7,080.

Western Pakistan has an estimated road mileage of 46,000, about half of which is suitable for motor traffic. Eastern Pakistan has few roads for motor vehicles, but there are about 2,800 miles of waterways navigable by small steamers. On June 30, 1954, the merchant marine had 56 vessels (100 tons and over) aggregating 169,782 gross tons. Karachi, chief port, is the distribution center for north India and has the most important airport on the subcontinent. Chittagong is being developed as a port for eastern Pakistan.

Pakistan's industries supply only a small part of the national requirements. The most important manufacturing area is in the vicinity of Lahore in the Punjab. Industries include cotton ginning, spinning and weaving, sugar refining, cement making, flour milling, railway and engineering workshops and petroleum refining.

The budget for the fiscal year 1955–56 estimated revenue at Rs.1,190,000,000 and ordinary expenditure at Rs.1,204,000,000; capital expenditure was placed at Rs.1,244,000,000, to be financed by loans and foreign aid.

NATURAL FEATURES AND RESOURCES; CLIMATE. Almost all of Sind and the west Punjab are a continuation of north-central plains leading up to rugged mountains in the north and west which traverse Baluchistan and the North-West Frontier Province. Eastern Pakistan is a low-lying, flat country with elevation averaging not more than 600 feet above sea level.

Mineral resources are limited. Production in 1954 included petroleum, 260,400 metric tons (about 1,950,000 bbl.); coal and lignite, 564,000 tons; (1953) chromite, 23,800 tons; gypsum, 32,700 tons.

Western Pakistan has a brisk, cool season between November and March, with average mean temperature of about 60°, and an extremely warm period between April and November, with an average mean of 85°. Rainfall averages about 10 inches a year, of which Sind may receive as little as 6.3 in. Eastern Pakistan is within the range of the summer monsoon, with average annual rainfall of 85 in. The average maximum temperature varies between 75° and 100° April to June; the minimum, between 45° and 60° November to January.

OCEANIA

Australia, Commonwealth of

(Member of Commonwealth of Nations)

Area: 2,974,581 square miles.

Population (est. Dec. 31, 1954): 9,090,738 (excluding full-blooded aborigines, estimated at 50,000).

Density per square mile: 3.2.

Ruler: Queen Elizabeth II.

Governor General: Field Marshal Sir William Slim.

Prime Minister: Robert Gordon Menzies.

Principal cities (est. Dec. 31, 1952): Sydney, 1,621,040 (seaport, wool market); Melbourne, 1,393,000 (seaport, wool, wheat); Brisbane, 469,000 (seaport, industrial center); Adelaide, 459,000 (seaport); Perth, 346,000 (western seaport); Canberra, 26,732 (capital).

Monetary unit: Australian pound (£A).

Language: English.

Religions (census 1947): Anglican, 39.0%; Roman Catholic, 20.7%; Presbyterian, 9.8%; Methodist, 11.5%; other Christians, 7.1%; others, 11.9%.

HISTORY. Australia was the last continent to be discovered. The first Europeans to land were the Dutch, who sailed into the Gulf of Carpentaria in March, 1606. Later in the same year, Luis Vas de Torres, a Spaniard, sailed through the strait subsequently named for him, and may have touched at several points on the north coast. In 1642 Abel Tasman (for whom Tasmania was named) sailed from west to east along the southern shore and proved that Australia was not a part of the Antarctic continent. The continent was called New Holland until about 1850.

In 1770 Captain James Cook, after visiting New Zealand, sailed to the east coast of New Holland and landed south of the present city of Sydney. His account of the country led to its being claimed and settled by Great Britain.

The first settlement, made in 1788 at Botany Bay, was founded as a penal station for criminals from England. Transportation of criminals was virtually suspended in 1839, and Australia had comparatively few white settlers until gold was discovered in Victoria in 1851, after which immi-

grants poured in. By 1860 all the states (then separate colonies) except Western Australia had been granted responsible government.

On January 1, 1901, the six Australian states united to form the Commonwealth of Australia. The Commonwealth supported Great Britain wholeheartedly in World War I, sending 329,883 troops abroad, all volunteers. Australia again declared war on Germany September 3, 1939, and became a vast base for U. S. troops. Gen. Douglas MacArthur set up his headquarters there on March 17, 1942.

In the general elections held August 21, 1943, Prime Minister John Curtin's Labour government was confirmed in office. Curtin died July 5, 1945, and was succeeded by Joseph B. Chifley, also of the Labour party. The Labour government was defeated by the Liberal-Country-party coalition in general elections held Dec. 10, 1949, and Robert Gordon Menzies, the Liberal leader, became Prime Minister on Dec. 15. Elections held April 28, 1951, and May 29, 1954, were again won by the coalition, although by narrower margins.

Australia was visited in 1954 by Queen Elizabeth II and the Duke of Edinburgh.

GOVERNMENT AND DEFENSE. Australia, a self-governing member of the Commonwealth of Nations, is a union of 6 states (New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania) and 2 territories (Northern Territory, Australian Capital Territory).

Legislative power is vested in a Parliament of 2 houses—the Senate with 60 members (10 for each state), the House of Representatives with 121 members (plus 2 without vote who represent the territories) elected on a population basis.

Executive power nominally is exercised by the Queen, through a Governor General, who is appointed by her. Actually, however, the Commonwealth is administered by the Prime Minister and the Cabinet members, who are responsible to the House of Representatives and must enjoy its confidence. The House of Representatives continues its sessions for three years from the date of its first meeting, unless sooner dissolved. Senators are chosen for six years, but the Senate may be dissolved in the event of prolonged disagreement with the House. The party alignment in the House after the elections of May 29, 1954, was as follows: Liberal-Country-party coalition 64; Labour 57 (and 2 non-voting members).

Each of the states is headed by a Governor who is appointed by the Queen and is advised by the Prime Minister and his Cabinet; the latter actually administer the government. As in the U. S., the state governments retain the powers not specifically delegated to the federal government. The Northern Territory is administered by the federal government.

Federal judicial power is vested in a Federal Supreme Court of 7 justices, appointed by the Governor General in Council. Each state has its own judicial system.

Compulsory military service was reintroduced in 1951. The strength of the regular forces at June 30, 1953, was: army, 28,052; navy, 13,945; air force, 15,436. In Dec. 1954, the navy had 2 light aircraft carriers, 1 cruiser, 6 destroyers, 17 frigates and escort vessels and numerous smaller craft. Army, navy and air units were sent to Korea. During World War II, 350,000 men served overseas.

SOCIAL AND ECONOMIC CONDITIONS. Normal primary education is provided free by the states. In 1951 there were 7,648 state schools, with average attendance of 1,012,874, and 1,890 private schools, with average attendance of 326,258. The 9 universities had a total enrollment of 29,641 in 1952. Illiteracy is almost unknown among the European population.

Australia is the world's chief producer of wool, and sheep farming is the Commonwealth's most important single industry. About 55 per cent of Australia's total area is suitable (mining excepted) only for pastoral pursuits. On March 31, 1953, there were 123,072,000 sheep, 15,247,000 cattle, 993,000 pigs and 895,000 horses. The production of wool in 1952–53 was 571,913 long tons (greasy); butter, 167,581 metric tons; cheese, 46,786 tons. Production of meat was 1,154,424 tons in 1952–53.

The most important crop is wheat; the areas of heaviest production are in South Australia and New South Wales, but production in Western Australia is rapidly increasing. Production of wheat in 1952–53 was 5,228,782 long tons; oats, 778,989 tons; barley, 782,253 tons; maize, 124,172 tons.

Sugar and cotton are grown in Queensland and New South Wales, tobacco in northeast Victoria, and vines chiefly in South Australia and Victoria.

New South Wales is the leading industrial state. Power for industry is derived almost entirely from coal. Steel production was 2,049,237 long tons in 1953; pig iron, 1,736,854 tons.

Trade statistics for three years (in millions of Australian pounds) are as follows:

	1950–51	1951–52	1952–53
Exports	981.8	669.0	871.3
Imports	741.4	1,050.1	514.1

In 1952–53 the leading customers were Britain (41%), Japan (10%), France (9%) and the U. S. (7%). Leading suppliers were Britain (42%), the U. S. (17%), Indonesia (4%) and Canada (4%). Chief exports were wool (46%), meat (8%), wheat (6%), flour (4%) and lead (3%).

The principal ports are Sydney, Melburne and Adelaide. Railway mileage in 53 totaled 27,000; roads, over 500,000. vil aviation is under Commonwealth ntrol. The merchant marine had 354 ips of 100 tons and more, aggregating 3,965 gross tons, on June 30, 1953. In arch 1953 there were 1,452,878 telephones id 2,010,595 radio receiving licenses and Dec. 1953, 1,146,000 automobiles and 3,000 commercial vehicles.

Recent public finance data on consolated account are as follows (in millions Australian pounds):

	1951–52	1952–53	1953–54*
evenue	1,016.8	1,040.1	986.8
xpenditure	1,016.8	1,026.7	986.5

* Budget estimate.

The public debt (federal and state) on ec. 31, 1953, was £A3,521,389,000 (federal lly: £A1,924,409,000).

ATURAL FEATURES AND RESOURCES; LIMATE. Australia is approximately equal area to the United States and is more an three-fourths the size of Europe. Along the east coast, ranges of mountains in from north to south, reaching their ghest point in Mt. Kosciusko (7,352 ft.). he western half of the continent is occued by a desert plateau which rises into arren, rolling hills near the west coast. It cludes the Great Victoria Desert, to the uth, and the Great Sandy Desert to the rth. The island of Tasmania (26,215 sq. i.) lies off the southeastern coast.

Australia possesses considerable mineral sources. The value of mineral output 1952 was £A136,298,000. Most important gold (1953 output: 1,075,080 ounces). Secnd in importance is coal, mined near ydney, Brisbane and in eastern Tasmania 953 output: 18,441,000 long tons, plus 257,000 tons of brown coal). The Broken ill mines in New South Wales are one of ie most valuable silver-lead-zinc areas in ie world. Silver production in 1953 was out 12,540,000 ounces; lead, 269,296 long ns; zinc, 239,069 tons. Other important inerals in 1953 included tin (1,494 tons), pper (37,364 tons), iron ore (3,298,718 ns) and uranium.

Forest products include timber (rough wn), eucalyptus oil, sandalwood oil, tan ark and yacca gum. Sea products include êche-de-mer, oysters, pearls, pearl shell, rtoise shell and agar-agar.

limate. The northern third of the county lies within the torrid zone and the reainder within the south temperate zone. he coolest portion of the mainland (Victoria) is not unlike Spain and south Italy. he average temperature for Australia as whole is 70°, and the northern coastal reas average 82°. Only in the center of ie continent does the annual range of emperature exceed 30°. Large areas of the continent receive less than 10 inches of rain. The eastern highlands and Victoria are the best-watered regions.

Norfolk Island, under Commonwealth administration since 1914, lies about 800 miles east of New South Wales. It enjoys a delightful subtropical climate. Citrus fruits, bananas and coffee are grown.

PAPUA AND NEW GUINEA, TERRITORY OF—Status: Australian territory and U. N. trust territory.
Administrator: D. M. Cleland.
Capital: Port Moresby (population 13,800).
Chief exports: copra, rubber, gold.
Agricultural products: coconuts, rubber, copra, cacao.
Minerals: gold, silver, platinum.

Effective July 1, 1949, the Australian territory of Papua and the U. N. trust territory of New Guinea were joined in an administrative union by act of the Australian Parliament. Provision is made for an executive and a legislative council.

Papua, comprising the southeastern part of the island of New Guinea, and the islands of the D'Entrecasteaux, Louisiade and nearby groups, was annexed by Queensland in 1883 and by the British Crown in 1888. It came under the control of the Australian Commonwealth in 1901 and became the Territory of Papua in 1906. Japan invaded Papua in early 1942, but in Dec. 1942, Australian control was restored.

On June 30, 1952, there were 4,242 nonnatives in the territory. As of that date 52,819 acres of land had been leased, chiefly for agricultural purposes.

The U. N. trust territory of New Guinea, comprising the northern section of eastern New Guinea (93,000 sq. mi.), was mandated in 1920 by the League of Nations to the government of the Commonwealth of Australia, together with the Bismarck Archipelago (New Britain, New Ireland and adjacent islands), the Admiralty Islands with several outlying groups, and the northern Solomon Islands (Bougainville and Buka). It was placed under United Nations trusteeship Dec. 13, 1946, with Australia as the administering power. Japanese troops occupied much of the territory in 1942–45. In 1953 there were 11,064 nonnatives in the territory.

FIJI—Status: Colony.
Governor: Sir Ronald H. Garvey.
Capital: Suva (population 25,395).
Foreign trade (1954): exports, £11,239,985 (37% to Britain); imports, £11,642,801 (33% from Britain). Chief exports: sugar (49%), coconut oil (19%), gold (10%).
Agricultural products: sugar (exports 1954: 136,297 long tons); coconut oil (17,027 tons), copra, bananas, molasses.
Mineral: gold (1954: 78,411 oz.).

Fiji colony consists of an archipelago of from 200 to 250 islands in the South Pa-

cific Ocean about 1,740 miles northeast of Sydney, Australia. The larger islands, including Viti Levu (4,053 sq. mi.) and Vanua Levu (2,130 sq. mi.) are mountainous and of volcanic origin. The archipelago was ceded to Great Britain by the native ruler in 1874.

The population in 1954 included 142,100 Fijians and 160,303 Indians. Importation of the latter to work the sugar plantations has led to important social and economic changes. There has been almost no intermarriage between Fijians and Indians, and considerable ill feeling has developed between them.

During World War II, the archipelago was an important air and naval station on the route from the United States west coast and Hawaii to Australia and New Zealand.

Fiji has a pleasant climate, with the temperature seldom leaving the 60°–90° range; rainfall is heavy in the southeastern three quarters of the archipelago, averaging 10–12 ft. annually, but is almost nil in the northwestern quarter.

TONGA (FRIENDLY ISLANDS)—Status: Protected state.

Ruler: Queen Salote Tupou.

Foreign trade (1954): exports, £A1,393,211; imports, £A1,110,648. Chief export: copra (88%).

This native Polynesian kingdom in the Pacific came under British protection through the Anglo-German agreement of November 14, 1899. The native Queen is advised by a British Agent; the 21-member native Legislative Council is partly elected and partly nominated. The only important products are copra and bananas.

PITCAIRN ISLAND—Status: Colony.

Located in the South Pacific, about midway between Australia and South America, Pitcairn has an area of 2 square miles. It was settled in 1790 by British mutineers from the ship *Bounty*, commanded by Capt. Bligh. Overpopulation forced removal of the settlement to Norfolk Island in 1856, but about 40 soon returned. The island is administered by the Governor of Fiji through an elected council headed by a Chief Magistrate. The population in 1953 was about 140.

NAURU—Status: U. N. trust territory.

This small island (8 sq. mi.), an important sources of phosphate (exports about 1,000,000 tons annually) was annexed by Germany in 1888 and was placed under joint Australian, New Zealand and British mandate after World War I. In 1947 it was placed under U. N. trusteeship, with the same three administering powers. It lies approximately 2,215 miles northeast of Sydney.

New Zealand

(Member of Commonwealth of Nations)

Area: 103,416 square miles (104,242 including outlying and annexed islands).

Population (est. March 31, 1955): 2,130,927 (1951: European, 92.3%; Maori, 5.9%; others, 1.8%).

Density per square mile: 20.6.

Ruler: Queen Elizabeth II.

Governor General: Lt. Gen. Sir Willoughby Norrie.

Prime Minister: Sidney G. Holland.

Principal cities (est. Apr. 1, 1954): Auckland (greater), 361,600 (seaport and naval base); Christchurch, 186,500 (cereals, stock raising); Wellington, 140,400 (capital); Dunedin City, 99,300 (textiles).

Monetary unit: New Zealand pound (£NZ).

Language: English.

Religions (census 1951): Church of England, 37.5%; Presbyterian, 22.3%; Roman Catholic, 13.6%; Methodist, 8.1%; Baptist, 1.6%; others, 16.9%.

HISTORY. New Zealand, about 1,250 miles east of Australia, consists of two main islands and a number of smaller outlying islands so scattered that they range from the tropical to the antarctic. The islands, which have approximately the area of Italy, were discovered and named New Zealand in 1642 by Abel Tasman, a Dutch navigator. Captain James Cook explored them in 1769 and after him came many other sailors, sealers, whalers and traders. English missionaries landed in 1814 but made slow progress. On Jan. 22, 1840, to head off a possible French move to claim New Zealand, Britain formally annexed it.

New Zealand was granted self-government in 1852, a full parliamentary system and ministries in 1856 and dominion status on Sept. 26, 1907. Meanwhile from 1861 to 1871 there was fierce intermittent fighting with the native Maoris. Gold was first discovered in 1853.

New Zealand's Labour party came to power in 1935 for the first time, with Michael J. Savage as Prime Minister. The party began a program of liberal economic and social measures and it was again successful in the 1938 elections.

In World War II, New Zealand troops fought in Egypt, Greece, Crete, North Africa, Sicily and Italy, and the islands served as a major base for U. S. troops in the Pacific war.

After 14 years in power, the Labour party was defeated at the general election of Nov. 30, 1949, and the National party took office with Sidney G. Holland as Prime Minister.

GOVERNMENT AND DEFENSE. New Zealand is a self-governing member of the Commonwealth of Nations. The Queen is represented by a Governor General named by the Queen after consulting with the New Zealand government. Legislative power is vested in the eighty-member House of Representatives. The former up-

er house (Legislative Council) was abol-hed effective Jan. 1, 1951. The House ected on Nov. 13, 1954, had 45 National arty members and 35 Labour party mem-ers.

Military service was voluntary until July 2, 1940, when compulsory service was in-ituted. Service outside New Zealand, itherto voluntary, also became obligatory uring World War II. At full mobilization, ew Zealand had 157,000 men in the armed orces and 124,000 in the Home Guard. Al-ost one-third of the whole male popula-on of military age served overseas. The eacetime force is stabilized at 11,000 men. aval forces include 2 cruisers, 6 escort estroyers and a number of mine sweepers.

Navy and volunteer army forces were ispatched to Korea in 1950, and compul-ory service was readopted. A mutual de-ense pact with the U. S. was signed Sept. , 1951.

OCIAL AND ECONOMIC CONDITIONS. tate education is free and compulsory be-ween the ages of 7 and 15. More than half he Maoris attend the regular public chools; the remainder attend missionary nd native village schools. In Dec. 1952, here were 2,195 primary schools with 25,020 students and 278 secondary and echnical schools with 61,094 students. niversity students numbered 10,325. bout 10 per cent of the national budget expended on education.

Primarily a grazing country, New Zea-and is one of the world's largest exporters f mutton, lamb, wool, butter and cheese. n 1954, livestock included 38,011,000 heep, 5,745,000 cattle and 649,000 hogs. Vool production for 1953–54 was 424,500,-00 lbs. (greasy basis). Outside of grass, he chief crop is wheat (4,783,000 bushels n 1953–54). Other crops are oats, barley, otatoes, onions, tobacco, fruits and vege-ables. Butter production in 1953–54 was 80,897 long tons; cheese, 102,954 tons; eat, 588,600 tons.

The chief industries of New Zealand are reezing of meat and making of butter, heese and condensed milk. Others of ma-or importance are electricity generation, aw milling and clothing manufacture.

Trade statistics for three years (in mil-ions of New Zealand pounds):

	1952	1953	1954*
xports	240.6	235.9	244.4
mports	252.4	180.0	234.6

* Provisional.

Leading customers in 1954 were Britain 67%), France (6%) and the U. S. (6%). eading exports were wool (36%), dairy roducts (27%) and meat (14%). Lead-ng suppliers were Britain (56%), Aus-ralia (13%) and the U. S. (8%).

According to *Lloyd's Register*, the mer-hant marine had 167 ships (100 tons and over) aggregating 244,383 gross tons on June 30, 1954. Government-owned railway mileage in 1953 was 3,535; highway mile-age in 1953 was 12,835.

Recent government financial data on ordinary account are as follows (in mil-lions of New Zealand pounds):

	1952–53	1953–54	1954–55
Revenue	177.8	182.3	191.2
Expenditure	174.5	180.5	184.4

The public debt on March 31, 1955, was £NZ730,683,875, excluding £NZ24,100,200 on which interest payments had been sus-pended since 1931 by agreement with the British government.

NATURAL FEATURES AND RESOURCES; CLIMATE. New Zealand's two main components are North Island and South Island, separated by Cook Strait, which varies from sixteen to 190 miles in width. North Island (44,281 sq. mi.) is 515 miles long and volcanic in its south central part. It contains many hot springs and beautiful geysers. In the southern part of North Is-land is Lake Taupo (238 sq. mi.).

South Island (58,093 sq. mi.) has the Southern Alps along its west coast, with Mt. Cook (12,349 feet) the highest point in New Zealand.

Principal minerals are coal (1954: 2,587,-000 long tons), gold (1953: 38,656 ounces) and silver (1953: 75,888 ounces). Other minerals of importance include tungsten, pumice, silica sand, asbestos, scheelite, iron ore and phosphate. About 20 per cent of the total area is forested; 600,000,000 board feet of lumber were cut in 1954–55.

Flounder, snapper and tarakihi account for 75% of New Zealand's fishery industry. There also are extensive oyster beds.

Numerous rushing streams give New Zea-land a great volume of hydroelectric power. South Island has available about 4,000,000 horsepower, and North Island 800,000. About 95 per cent of the population has access to power.

The ocean tempers New Zealand's cli-mate, which otherwise might have great variation. The range of mean temperatures is small (at Auckland, 66.3° in January, 51.2° in July; at Wellington, 60.9° in Jan-uary, 47.2° in July). Rainfall is moderate except on the western slope of the South-ern Alps; it averages 45.3 inches annually at Auckland and 47.5 inches at Wellington and is heaviest in winter.

DEPENDENCIES. The Auckland Islands (234 sq. mi.) and Campbell Island (44 sq. mi.) are the principal outlying islands, which have a total area of 307 square miles. They are included within the geographical boundaries of New Zealand as proclaimed in 1847. The Aucklands and Campbell are uninhabited. Six hundred miles north of the Aucklands are the volcanic Kermadec Islands (13 sq. mi.), annexed in 1887.

In Polynesia a number of uninhabited islands were brought under New Zealand's control in 1901. Rarotonga and Mangaia in the Cook group total 84 square miles. Niue (or Savage Island) (115 sq. mi.) is the largest island outside the Cook group. New Zealand also administers the Ross Dependency, an antarctic region claimed by Great Britain in 1923, and the Union (or Tokelau) Islands, transferred in 1925 from the Gilbert and Ellice Islands colony.

WESTERN SAMOA—Status: U. N. trust territory.

High commissioner: G. R. Powles.

Capital: Apia (population 10,000).

Foreign trade (1954): exports, £2,211,847 (62% to the U. K.); imports, £1,710,494 (31% from New Zealand). Chief exports: copra (43%), cacao (42%).

Principal products: copra, cacao, bananas, tropical fruits, rubber.

The former German Samoan Islands were occupied by New Zealand troops in the opening weeks of World War I and were mandated to New Zealand by the League of Nations in 1920 as the Territory of Western Samoa. They came under U. N. trusteeship in 1947, with New Zealand continuing as the administering authority. The High Commissioner is assisted by an Executive Council, a Legislative Assembly which has a Samoan majority and a consultative Native Council. There are 9 islands, of which the largest and most populous are Savaii (703 sq. mi.) and Upolu (430 sq. mi.). They are largely mountainous but fertile. The inhabitants are Polynesian Christians.

PACIFIC ISLANDS (British)

High Commissioner in Western Pacific: Sir Robert Stanley.

Island groups in the Pacific administered by the British High Commissioner in the Western Pacific include (1) Gilbert and Ellice Islands, (2) British Solomon Islands, and (3) New Hebrides Condominium (see French Overseas Territories). The High Commissioner has headquarters at Honiara, Solomon Islands.

GILBERT AND ELLICE ISLANDS—Status: Colony.

The islands in these groups (including the Gilbert group; the Ellice group; Ocean Island [the seat of administration], Fanning, Washington and Christmas Islands; and the Phoenix group) were proclaimed a British protectorate in 1892 and annexed as a colony in 1915. The most important product is high-grade phosphate.

Ownership of Canton and Enderbury islands in the Phoenix group was long in dispute between Great Britain and the United States until 1939, when an agreement for "use in common" was reached by the two governments. Several of the Gilbert islands were occupied by Japanese forces in World War II, and Tarawa was the scene of one of the fiercest battles in U. S. Marine Corps history in Nov. 1943, when it was retaken from the Japanese.

SOLOMON ISLANDS—Status: Protectorate.

This British protectorate, lying east of New Guinea, includes the islands of Guadalcanal, Malaita, San Cristobal, New Georgia, Santa Isabel, Choiseul and numerous smaller islands. Bougainville, one of the group, is under Australian mandate. The islands, which came under British protection late in the 19th century, were the scene of several important U. S. naval and military victories during World War II. There are no native states, and administration is carried on by the High Commissioner assisted by a nominated Advisory Council. The most important products are copra and rubber.

Bulgaria (People's Republic)

(Blgariya)

Area: 42,741 square miles.

Population (est. 1953): 7,450,000 (1947: Bulgarian, 88%; Turkish, 9.8%; others, 2.2%).

Density per square mile: 174.3.

Chairman of Presidium: Georgi Damianov.

Premier: Vulko Chervenkov.

Principal cities (census 1946): Sofia, 434,888 (capital, railroad center); Philippopolis (Plovdiv), 125,440 (commercial center); Stalin (Varna), 77,792 (Black Sea port); Ruschuk, 53,420 (chief Danube port); Burgas, 43,684 (Black Sea port).

Monetary unit: Lev.

Languages: Bulgarian, Turkish.

Religions: Greek Orthodox, 84.4%; Mohammedan, 13.5%; Jewish, .8%; Roman Catholic, .8%; others, .5%.

HISTORY. Bulgaria, with a strife-ridden political past, is an agrarian country about the size of Virginia. It sided timidly with Germany in World Wars I and II, hoping to win territory. It lost in both wars.

The first Bulgarians, a tribe of wild horsemen akin to the Huns, crossed the Danube from the north in A.D. 679, and took the province of Moesia from the Roman Empire. They adopted a Slav dialect and Slavic customs and twice conquered most of the Balkan peninsula between 893 and 1280. After the Serbs subjected their kingdom in 1330, the Bulgars gradually fell prey to the Turks, and from 1396 to 1878, Bulgaria was a Turkish province. In 1878, after the Turks had ruthlessly suppressed a Bulgar revolt, Russia forced Turkey to give the country its independence; but the European powers, fearing that Bulgaria might become a Russian dependency, intervened. By the Treaty o

Berlin (July, 1878), Bulgaria became autonomous under Turkish sovereignty, with the province of Eastern Rumelia under a Christian Governor.

In 1887, Prince Ferdinand of Saxe-Coburg-Gotha was elected ruler; on Oct. 5, 1908, he declared Bulgaria (and Rumelia) an independent kingdom.

In the First Balkan War (1912–13), Bulgaria joined its neighbor states and defeated Turkey; then it bickered with Serbia and Greece over division of Macedonia and was defeated by them in the Second Balkan War, which lasted one month.

Still coveting Macedonia, Bulgaria joined Germany in World War I and lost. On Oct. 3, 1918, Tsar Ferdinand abdicated in favor of his son, who became Tsar Boris III. The Treaty of Neuilly the next year disarmed Bulgaria, reduced it to its 1878 size, and levied a heavy indemnity. Internal disorder, underground intrigue and Agrarian-Communist agitation marked the next fifteen years.

Boris assumed dictatorial powers in 1934–35. When Hitler awarded his nation Southern Dobruja, taken from Rumania in 1940, the weak but land-hungry Boris joined the Nazis in war the next year and occupied parts of Yugoslavia and Greece. Later, with the fortunes of war swinging inexorably against them, the Germans tried to force Boris to send his troops against the Russians. Boris resisted and died under mysterious circumstances on Aug. 28, 1943.

Simeon II, infant son of Boris, became nominal ruler under a regency. Three days after Russia declared war on Bulgaria on Sept. 5, 1944, Bulgaria declared war on Germany. Russian troops streamed in the next day, and under an informal armistice a coalition "Fatherland Front" Cabinet was set up under Kimon Georgiev.

The Fatherland Front regime represented the Communist, Zveno, Agrarian and Social Democratic parties, but real power was in the hands of the Communists, who had active Soviet support and were ably led by Georgi Dimitrov, veteran party leader and former Secretary-General of the Comintern.

This government initiated extensive social and economic reforms, instituted a ruthless purge of war criminals and suppressed all political groups which failed to subscribe to its policies. The elections of Nov. 18, 1945, and Oct. 27, 1946, were conducted in typical Communist manner, with the Fatherland Front securing overwhelming majorities, according to official figures.

After the plebiscite of Sept. 8, 1946, which resulted in overthrow of the monarchy, and the Oct. 27 elections, the Communists quickly moved to take over the government officially and to reduce the political opposition to complete impotence. Under the peace treaty which took effect Sept. 15, 1947, after World War II, Bulgaria's boundaries are those which existed Jan. 1, 1941, thus including Southern Dobruja. Bulgaria was to pay reparations in the amount of $45,000,000 to Greece and $25,000,000 to Yugoslavia and was to make compensation for damage to Allied property in Bulgaria at the rate of 75% of the cost of replacement.

The United States broke diplomatic relations with Bulgaria on Feb. 21, 1950.

GOVERNMENT AND DEFENSE. The Constitution of 1947, modeled after the U.S.S.R.'s, provides that the unicameral National Assembly is "the supreme organ of the state." The Assembly elects a 15-member Presidium, the President of which is the nominal Chief of State. Governmental administration is carried on by the Premier and his Cabinet, who are responsible to the Assembly. On Feb. 4, 1948, the Communist-dominated Fatherland Front was declared the only official party.

The 1947 treaty of peace fixed the strength of the armed forces as follows: army 55,000; anti-aircraft artillery 1,800; navy 3,500; and air force 5,200 men and 90 aircraft, none of them bombers. The army was purged of all anti-Communist officers late in 1946 and has been reorganized along Soviet lines. Notwithstanding the treaty provisions, the army had an estimated strength of 175,000 by 1953.

SOCIAL AND ECONOMIC CONDITIONS. Elementary education is compulsory and free between 7 and 15; in 1946, 23% of the total population was illiterate. Schools in 1953 included 6,250 elementary, 250 secondary and 230 vocational training schools, with total enrollment of 1,120,000. There were 20 institutions of higher learning with 31,500 students.

Most of the population is Greek Orthodox. Clergy of all faiths are paid by the state. The national language, Bulgarian, is closely related to Russian; both employ the Cyrillic alphabet.

Bulgaria is predominantly agrarian, with 80 per cent of the population engaged in agriculture. Because of the mountainous character of the country, however, only about 43 per cent of the land is tilled or used for pasture. Most landholdings are small, and primitive methods of cultivation predominate. More than half the cultivated area is devoted to cereals, including wheat, corn, barley, oats and rye. Other crops are tobacco, alfalfa, cotton, flax, potatoes and sugar. There are extensive vineyards in the southern valleys.

Industries are of minor importance and with few exceptions—preparation of tobacco leaf, wines and liquors, fertilizers, distillation of attar of roses, and flour milling—are confined to domestic markets. All industries of any importance have been

nationalized. A five-year plan (1948–53) was instituted to increase the proportion of heavy to light industry; capital expenditure of $850,000,000 was projected.

Foreign trade necessarily consists of the exchange of agricultural products for cheap manufactures. Statistics, in billions of leva, are as follows:

	1946	1948	1950
Exports	14.94	34.10	51.62
Imports	17.51	35.20	38.57

Leading customers in 1950 were the U.S.S.R. (45%) and Czechoslovakia, Hungary, Rumania and Poland (31%). Leading suppliers were the U.S.S.R. (67%) and the four above-named satellites (31%). Tobacco was the principal export.

Although the Danube is navigable along the northern border, only a comparatively small percentage of prewar Danube ship tonnage was Bulgarian. Railroad mileage, all nationalized, totaled 2,231 in 1952; highway mileage was about 14,000 in 1950.

NATURAL FEATURES AND RESOURCES; CLIMATE. Two mountain ranges and two great valleys mark Bulgaria's topography. The Balkan belt crosses the center of the country, almost due east-west, rising to a height of 7,800 feet. The Rhodope range breaks off from the Balkans in the west, curves and then straightens out to run nearly parallel along the southern border. Between the two ranges is the valley of the Maritsa, Bulgaria's principal river. Between the Balkan range and the Danube, which forms most of the northern boundary with Rumania, is the Danubian tableland, traversed by several short rivers. Southern Dobruja, a fertile region of 2,900 square miles below the Danube delta, is an area of low hills, fens and sandy steppes.

Soft coal is Bulgaria's principal mineral; production in 1953 was estimated at 8,700,000 metric tons. Other mineral products include aluminum and rock salt.

Bulgaria's climate is characterized by cold winters and warm summers approaching the subtropical in the south. Rain and snowfall average twenty to forty inches a year. Temperatures at Sofia average 28° in January and 69° in July.

Burma (Republic)

Area: 261,749 square miles.
Population (est. 1954): 19,242,000 (1941: Burmans, 60%; Shans, 7%; Chins, 2%; Kachins, 1%; Indians, 6%; Chinese, 1%; Indo-Burmans, 1%; others, 22%).
Density per square mile: 73.5.
President: Dr. Ba U.
Premier: U Nu.
Principal cities (est. 1952): Rangoon, 600,000 (capital, chief port); Mandalay, 173,263 (river port, upper Burma); Moulmein, 89,767 (seaport); Akyab, 38,663 (rice).
Languages: Burmese (70%), English.
Religions: Buddhist, 90%; Mohammedan, 3%; Hindu, 3%; Christian, 2%; others, 2%.

HISTORY. Lying on the eastern side of the Bay of Bengal between India, China and Thailand, the Union of Burma came into existence as an independent state on Jan. 4, 1948. After that time the new republic had to hold its own with difficulty against attacks on the one hand by Communist rebels seeking its overthrow and on the other by Karen insurgents seeking wider territorial autonomy.

In 1612 the British East India Company sent agents to Burma, and in the 17th and 18th centuries the Burmese stoutly resisted the efforts of British, Dutch and Portuguese traders to establish posts on the Bay of Bengal. Actual British rule dated from 1826, and in 1886 British troops forced the annexation of all Burma to India. On April 1, 1937, the British separated Burma from India and set it up as a Crown colony with its own legislature and a British Governor.

For hundreds of years a battlefield of petty princes, Burma became a key battleground in World War II largely because the 800-mile Burma Road was the Allies' vital supply line to China. The Japanese invaded the country in Dec. 1941, and by May 1942, had occupied most of it, cutting the road. In Aug. 1942, the Japanese set up a puppet government under Dr. Ba Maw.

After one of the most difficult campaigns of the war, Allied forces liberated most of Burma prior to the Japanese surrender on Aug. 14, 1945. Civil government was resumed in Oct. 1945, but the native nationalist feeling continued strong.

An agreement with Britain signed on Jan. 27, 1947, gave the Burmese an opportunity to determine their future form of government. The leftist Anti-Fascist People's Freedom League secured a majority in the Constituent Assembly elections held April 9, 1947, and the Assembly voted on June 17, 1947, to declare Burma a republic. Thakin Nu (now known as U Nu) became Premier July 19, 1947, upon the assassination of U Aung San. Sovereignty was formally transferred on Jan. 4, 1948.

GOVERNMENT. The Constitution adopted by the Constituent Assembly Sept. 24, 1947, provides for a government headed by the President, who is elected by the two houses of Parliament—the Chamber of Deputies and the Chamber of Nationalities—meeting in joint session. The President appoints the Premier on nomination of the Chamber of Deputies; the Cabinet must enjoy the confidence of the Chamber of Deputies. Four frontier areas—the Shan, Kachin and

renni states, and the Chin special di-on—are constituent parts of the Union enjoy some autonomy.

The Anti-Fascist People's Freedom gue won about two-thirds of the 250 ts in the Chamber of Deputies in the t elections held under the new Consti-ion in 1951–52.

The Constitution contemplates a form state socialism, with the operation of public utilities and the exploitation of natural resources to come eventually der state control.

CIAL AND ECONOMIC CONDITIONS. 1952 Burma had 5,133 state and recog-ed primary schools with 595,873 pupils 416 secondary schools with 81,269 dents. Because of the many monastic ools, the percentage of wholly illiterate n is small. The University of Rangoon 4,000 students in 1952.

he natives in general are Mongolian; Burmese are the most advanced.

ndians, settled in the delta region, ply most of the coolie labor, while the nese constitute the artisan and mer-nt class. Buddhism, the national re-on, profoundly affects the national racter; every village in the country has temple.

urma is essentially agricultural, with o growing concentrated in the delta and r valleys. It is a leading producer of , the staple food, which occupies two-rds of the cultivated area. Output in 4–55 was 4,227,000 long tons. Crops wn in the dry zone in upper Burma ude millet, cotton, peanuts and ses-e. Other crops include tobacco, fruit, etables and cereals. About 1½ million s are under irrigation. The number of ber plantations has increased. The ncipal domestic animals are water buf-(1,046,000 in 1954), used as a beast of den in the delta, and small humped n, which predominate in other areas. tle, including oxen, totaled 4,686,000 1954.

eading industries include silk weaving dyeing, rice husking, oil refining and d carving.

ecent trade statistics are as follows (in ions of kyats):

	1951–52	1952–53	1953–54
orts	1,093.2	1,241.0	1,051.0
orts	818.7	885.5	946.7

hief exports in 1953–54 were rice (80%) timber, largely teakwood (3%). Lead-customers were Japan (28%), India %) and Ceylon (13%); leading sup-rs, Britain (30%), India (18%) and an (11%).

ecent government finance data, on nary and capital account, are as fol-(in millions of kyats):

	1952–53*	1953–54*	1954–55†
Revenue	954.6	1,383.8	1,118.3
Expenditure	1,154.7	1,412.1	1,442.3

* Preliminary. † Budget estimate.

The principal commercial arteries are the Irrawaddy, navigable for 900 miles to Bhamo, and its tributaries. Regular steamer service is maintained to Bhamo. Railways, designed to supplement river transport, totaled 1,802 miles in 1953, all state-owned. There are no rail connections with India or any other country. The length of roads was 12,472 miles in 1949. The Burma Road connects Lashio, a rail terminus in nothern Burma, with Kunming, China.

NATURAL FEATURES AND RESOURCES; CLIMATE. Slightly smaller than Texas, Burma is divided into three natural regions: the Arakan Yoma, a long, narrow mountain range forming the barrier between Burma and India; the Shan Plateau in the east, extending southward into Tenasserim; and the Central Basin running down to the flat, fertile delta of the Irrawaddy in the south. This delta contains a network of inter-communicating canals and nine principal mouths.

Mineral resources are considerable but, in many cases, undeveloped. Production by the Burmah Oil Company, Ltd., in 1939, was 7,396,000 barrels, but in 1954 it was only 1,321,000 barrels. Production of tin concentrates was 1,024 long tons.

Other minerals include lead, silver, zinc, nickel, cobalt, copper, gold, iron ore, molybdenum, coal, uranium (reported), rubies, sapphires and jade.

More than half of Burma is forested, with government reserves totaling 31,637 square miles. Teak, valuable for naval construction, is the main timber product. Its cutting is strictly controlled. Natural rubber production was estimated at 12,900 short tons in 1954.

Burma forms part of the Asiatic monsoon region, but its climate is modified by the topography. There are three seasons: (1) cool and rainless (November through February); (2) hot and rainless (March through May) and (3) rainy (June through October). At Rangoon the annual temperature range is only 10°; at Mandalay, about 20°. Annual rainfall at Rangoon is about 100 in.; at Mandalay, 33.4 in.

Chile (Republic)

(República de Chile)

Area: 286,323 square miles.

Population (est. 1954): 6,238,000 (white, 30%; mestizo, 65%; Indian, 5%).

Density per square mile: 21.8.

President: Carlos Ibáñez del Campo.

Principal cities (census 1952): Santiago, 1,348,283 (capital); Valparaíso, 218,829 (port); Concepción, 119,887 (farming cen-

er); Viña del Mar, 85,281 (resort center); Antofagasta, 62,272 (nitrates).
Monetary unit: Peso.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Chile has had a relatively tranquil history amid its neighbors' long record of strife, but it has suffered repeated labor disturbances in recent years.

Europeans first arrived in 1536, when Diego de Almagro, an associate of Pizarro, led an unsuccessful invasion from Peru. Five years later another Spaniard, Pedro de Valdivia, founded Santiago. On Sept. 18, 1810, Chile rebelled against Spanish rule, but independence was not won completely until 1818, when Bernardo O'Higgins and José de San Martín finally crushed the Spanish armies.

Chile, which has never lost a war, fought with Bolivia and Peru in 1879–83 and won the province of Antofagasta, Bolivia's only outlet to the Pacific, as well as extensive areas from Peru. In World War I, Chile was neutral. The overthrow in 1931 of Colonel Carlos Ibáñez, who had seized power in 1927, was followed by a brief chaotic period in which seven Presidents tumbled in and out of office, but Dr. Arturo Alessandri (1932–38) did much to restore Chile's political and economic order.

Pedro Aguirre Cerda, victor in the 1938 elections, initiated an extensive Socialist program before his death on Nov. 25, 1941. Under both external and internal pressure, the latter notably from its strong Communist party, Chile broke relations with the Axis on Jan. 20, 1943, but did not declare war on Japan until Feb. 14, 1945.

Ríos died June 27, 1946. Following a special election, Gabriel González Videla, candidate of a leftist-center coalition, became President on Nov. 3, 1946. His administration was plagued by recurrent labor disputes, some of which were said to be Communist-inspired. He pursued a strong anti-Communist policy. Carlos Ibáñez was elected to succeed him Sept. 4, 1952.

GOVERNMENT AND DEFENSE. The nation elects a President every six years, a Senate of forty-five members every eight years (one half renewable every four years) and a Chamber of Deputies of 147 members every four years. The President is assisted by a Cabinet responsible to him but subject to impeachment by Congress, which also may override a presidential veto by two-thirds vote. All literate citizens over twenty-one may vote in elections.

Military service is compulsory, beginning at twenty with an initial training period of nine months, after which a civilian is on reserve until the age of forty-five. In 1948 the army was unofficially estimated at 25,000. The navy, normally 13,000 men strong, had in 1954 one old battleship of 28,000 tons, two light cruisers (acquired from the U. S. in 1951), six destroyers, si frigates, five submarines, two coast de fense ships and smaller craft. The air forc was expanded during World War II.

SOCIAL AND ECONOMIC CONDITIONS Education, free and compulsory betwee 7 and 15, is directed by the central govern ment. In 1943, illiteracy was estimated a 24 per cent, third lowest in Latin Americ School enrollment in 1949 was about 830 000. There are five universities.

The base of the white population i Spanish, although there are some Germa English, Irish and Scotch. Roman Catholi cism is the dominant religion, but churc and state were separated in 1925.

Chilean agriculture is mostly confined t the temperate central valley, similar t that of California. The available produc tive land is extremely limited, and most c it must be irrigated. Wheat (1953–54: 934 000 metric tons) is the leading crop, fol lowed by potatoes, oats, barley, corn, strin beans and fruits. Grapes, next to whea in acreage, produced an estimated 75,000 000 gallons of wine in 1954. Feudal-typ estates, averaging 2,500 acres, predominat Cattle in 1953 totaled 2,409,100 and shee (1951) 6,500,000. Wool production (1954 was about 20,000 metric tons (greasy).

Foreign trade (in millions of U. S. do lars):

	1952	1953	19
Exports	454	409	4
Imports	371	335	3

In 1954 the leading customers were t U. S. (47%), Britain (14%) and Argenti (9%); leading suppliers were the U. (41%), Argentina (15%) and Peru (8% Chief exports in 1953 were copper (57% and nitrate (15%). The leading i ports were machinery and vehicles, te tiles, sugar, and iron and steel and man factures.

Except for mineral processing, m manufacturing is of low-priced consume goods, particularly textiles. A steel indust was established in 1946; production for t year 1954 amounted to about 321,000 m ric tons.

Highway mileage totaled approximat 31,250 in 1951, about a third improv Rail mileage is 5,434, partly electrifi Civil aviation is highly developed in interior, and several international li serve the country. According to *Lloy Register*, the merchant marine had vessels (100 tons and over) aggregat 210,592 gross tons on June 30, 1954.

Recent financial data are as follows billions of pesos):

	1953*	1954†	1
Revenue	43.7	62.9	
Expenditure	54.1	62.9	

* Preliminary. † Budget estimate.

The funded external debt on Dec. 31, 3, was £17,440,974, $106,595,500 and 832,400 Swiss francs; the direct in-nal debt, 10,363,370,454 pesos.

TURAL FEATURES AND RESOURCES; IMATE. A narrow, mountainous land, ile has one-third of its area covered by towering ranges of the Andes. In the rth is the mineral-rich Atacama Desert, ween the coast mountains and the des. In the center is a 700-mile-long val-, thickly populated, between the Andes d the coastal plateau. In the south, the des border on the ocean.

At the southern tip of Chile's mainland Punta Arenas, the southernmost city in world, and beyond that lies the Strait Magellan and Tierra del Fuego, an is-d divided between Chile and Argentina. e Juan Fernández Islands, in the South cific about 400 miles west of the main-d, and Easter Island, about 2,000 miles st, are Chilean possessions.

The basis of the country's economy is its neral resources in the northern desert vinces of Atacama, Antofagasta and rapacá, where the only natural nitrate the world is found. Some 60 per cent of world's iodine is obtained as a by-duct of nitrate processing. Chile's world nopoly in nitrate, however, declined in portance with development of the syn-tic product.

The world's largest copper reserve, esti-ted at 134 billion pounds, is in Chile, l also more than 900 million tons of h grade iron ore. The reserve of Chilean l, noted for quantity rather than qual-, exceeds two billion tons.

Mineral production in 1953 was as fol-vs: coal and lignite, 2,126,699 metric s; copper, 337,242 tons; iron ore, 2,903,-tons; nitrate of soda, 1,420,243 tons; d, 130,690 ounces; silver, 1,497,800 nces. Mercury, manganese ore, cobalt, c, tungsten and molybdenum also are dûced, and deposits of uranium have n reported. Oil was first produced in rra del Fuego in Dec. 1945. Production the year 1954 was approximately 1,730,-barrels.

Forests, estimated to cover 35 million es in the southern provinces, yield a iety of commercial wood, including co-er, laurel and magnolia.

n Chile's extreme north the days are , the nights warm on the coast and cool the interior. Central Chile's climate is nparable to that of southern California, l southward in the lake regions the cli-te is similar to that of the U. S. Pacific rthwest. In the extreme south, fogs and rms keep the mean temperature low. ntiago has extreme recorded temperature ges of 25° and 96°. Rainfall there aver-s 14 inches annually.

China (Republic)

(Chung-Hua Min-Kuo)

Area: 3,858,900 square miles.*
Population (census 1953): 590,194,715.*
Density per square mile: 152.9.
President, Nationalist China: Generalissimo Chiang Kai-shek.
Premier: O. K. Yui.
Chairman, Communist China: Mao Tse-tung.
Premier: Chou En-lai.
Principal cities (census 1953): Shanghai, 6,204,417 (chief port, industrial and financial center); Peking (Peiping), 2,768,149 (capital, Communist China); Tientsin, 2,693,831 (commercial center); (est. 1952) Chungking, 2,000,000 (river port, trade center); Mukden, 1,790,000 (Manchurian industrial center); Canton, 1,210,000 (southern commercial center); Wuhan, 1,090,000 (river port); Nanking, 1,020,000 (former Nationalist capital).
Monetary unit: Chinese dollar (yuan).
Language: Chinese.
Religions: Confucianism, Buddhism, Taoism, Mohammedanism, Christianity.

* Including Province of Formosa (Taiwan), Manchuria and Tibet. Census not taken in Formosa (population estimated at 7,591,298); population total excludes an estimated 11,743,320 Chinese resident abroad.

HISTORY. By 2000 B.C., the Chinese were living in the Hwang Ho basin, and they had achieved an advanced stage of civilization by 1200 B.C. The great philosophers, Lao-tse, Confucius, Mo Ti and Mencius lived during the Chou dynasty (about 1122 to 249 B.C.). The warring feudal states were first united under Emperor Ch'in Shih Huang Ti, during whose reign (246–210 B.C.) work was begun on the Great Wall. Under the Han dynasty (206 B.C. to A.D. 220) China prospered and traded with the West.

The T'ang dynasty (618–907) has often been called the golden age of Chinese history. Painting, sculpture and poetry flourished under royal patronage, and printing made its earliest known appearance.

The Mings, last of the native rulers (1368–1644), overthrew the Mongol or Yuan dynasty (1280–1368) established by Kublai Khan, whose dominions extended into eastern Europe. The weakening Mings in turn were overthrown in 1644 by invaders from the north, the Manchus.

The Chinese closely restricted foreign activities, and by the end of the 18th century only Canton (and the Portuguese port of Macao) were open to European merchants. Following the Anglo-Chinese War of 1839–42, however, several treaty ports were opened and Hong Kong was ceded to Britain. Treaties signed after further hostilities (1856–60) weakened Chinese sovereignty and removed foreigners from Chinese jurisdiction. The disastrous Chinese-Japanese War of 1894–95 was followed by a scramble for Chinese leases and concessions by European powers which resulted in the Boxer Rebellion (1900), suppressed by an international force.

The death of the Empress Dowager Tzu Hsi in 1908 and the accession of the infant Emperor Hsüan T'ung (Pu-Yi) were followed by a nation-wide rebellion led by Dr. Sun Yat-sen, who became first President of the Provisional Chinese Republic in 1911. The Manchus abdicated on Feb. 12, 1912. Dr. Sun resigned in favor of Yuan Shih-k'ai, who suppressed the republicans but was forced by a serious rising in 1915–16 to abandon his intention of declaring himself Emperor. Yuan's death in June 1916, was followed by years of civil war between rival militarists and Dr. Sun's republicans. The death in 1925 of Dr. Sun, who had controlled only the Canton area in opposition to the recognized regime, was followed by a revival of the Kuomintang party, which practically deified him. Nationalist forces, led by Gen. Chiang Kai-shek and advised originally by Communist experts, soon occupied most of China, setting up a Kuomintang regime in 1928. Internal strife continued, however, and Chiang broke with the Communists.

An alleged explosion on the South Manchurian Railway on Sept. 18, 1931, brought invasion of Manchuria by Japanese forces, who installed the last Manchu Emperor, Henry Pu-Yi, as nominal ruler of the puppet state of "Manchukuo." Japanese efforts to take China's northern provinces in July 1937, were resisted by Chiang Kai-shek, who meanwhile had succeeded in uniting most of China behind him. Within two years, however, Japan seized most of the ports and railways. The Kuomintang government retreated first to Hankow and then to Chungking, while in "Occupied China" the Japanese set up a puppet government at Nanking headed by Wang Ching-wei. In 1943 Chiang became political as well as military leader of "Free China."

When the Japanese surrendered in 1945, a treaty was signed with the Soviet Union providing for Soviet withdrawal from Manchuria, joint Chinese-Soviet control of Manchurian railways for 30 years, a joint Chinese-Soviet naval base at Port Arthur and a free port at Dairen.

The surrender of Japan also touched off a civil war between Nationalist and Communist forces for control of China.

By the end of 1949, all China except the island of Formosa was under Communist control. Barricaded on Formosa, the Nationalist regime had little means at its disposal to make any effective counter-attack upon the mainland. The U. S., however, after the outbreak of the Korean war in June 1950, promised naval and air aid to repel any invasion of Formosa.

The Communists meanwhile set up in September 1949. a soviet-type government. After prolonged negotiations, the People's government and the Soviet Union signed a 30-year treaty of friendship and mutual aid on Feb. 14, 1950; its published terms provided for a $300,000,000 Soviet credit and for the return of the Changchun railroad to China and the eventual return of Port Arthur and Dairen.

The Communist regime subsequently was recognized as the legal government of China by many nations but was unsuccessful in its efforts to secure a place in the U. N. It threw several hundred thousand men into the Korean war of 1950–53 in a futile effort to drive U. N. forces from Korea.

GOVERNMENT AND DEFENSE. Under the Nationalist Constitution of 1947, the highest state organ is the National Assembly, which meets once each three years and is the "sovereign organ of the people." Its members are elected for 6-year terms on the basis of territorial and professional representation. The Assembly elects the President and Vice President of the Republic for 6-year terms. The organs of government include the Executive Yüan (Cabinet), whose members, headed by the Premier, are appointed by the President with the concurrence of the Legislative Yüan and the Legislative Yüan, which exercises legislative functions when the Assembly is not in session and has ultimate control over the cabinet.

The definitive Constitution of the People's republic, adopted by the National People's Congress on Sept. 20, 1954, established the Congress as the highest organ of state power. Its 1,226 members are elected for a 4-year term by local government bodies, the armed forces and Chinese resident abroad. Executive power is vested in the Chairman or President, elected for a 4-year term by the Congress. He appoints the Premier and his Cabinet. The Cabinet, the highest administrative organ, consists of 35 ministers. Effective control is exercised throughout by the central committee of the Chinese Communist party.

Defense. Military service is compulsory in Nationalist China; the initial training period is one or two years. The fighting strength of the army in 1954 was upward of 600,000 men. The air force had about 300 planes and the navy, some 100 small vessels.

The chairman is commander-in-chief of the Communist armed forces. In 1954 they numbered about 5,000,000 men, divided into several field armies. The air force had about 2,000 Soviet-built planes, about half of them jet fighters. About 50 naval vessels, including 20 submarines, were reported to have been acquired from the U.S.S.R.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Emphasis on the mainland is upon technical training and inculcation of the Communist ideology. In 1952, the

e reported to be about 550,000 primary
ools with about 53,000,000 pupils, 5,500
ondary schools with about 3,000,000
ils and, in June 1953, 218 colleges and
versities with 219,700 students.

he mass literacy movement has been
ompanied by the replacement of the
classical or. "dead" Chinese language
h the popular vernacular (Pai-hua) of
Mandarin dialect, employing perhaps
0 of the most essential of the many
usands of Chinese ideographs.

iculture. In China, nearly 80 per
t of the population depend on the land
livelihood. Subsistence crops are neces-
ly emphasized, but China is still not
-sufficient in food. Cultivation is inten-
, holdings are small, and irrigation is
ely practiced. The three most impor-
t food crops are rice, wheat and maize;
l grain production was officially esti-
ed at 163,750,000 metric tons in 1952.
n northern China, wheat, barley, corn,
ghum, millet and other cereals, and
ns and peas predominate, whereas in
south, rice, sugar and indigo are most
ortant. The Yangtze basin, one of
most favored agricultural regions in the
ld, is China's premier granary. Tea, the
f beverage, is grown mainly in the cen-
uplands, coastal ranges and Szechwan;
duction in 1952 was officially placed at
00 tons.

lkworm culture is practiced widely, es-
ally in the lower Yangtze valley. Cot-
the major purely industrial crop, runs
n 2,500,000 to 4,000,000 bales a year.
beans are of ever-increasing impor-
ce. Other crops include fibers, tobacco,
etable oils, cane sugar and many medic-
plants and spices.

he urgent need for subsistence crops
confined grazing grounds for sheep
cattle to the dry northwest and to
ntain pastures. However, such animals
goats, poultry and especially pigs are
ed everywhere. According to unofficial
mates, Communist China had in 1953
12,000 cattle, 17,190,000 sheep, 77,-
000 hogs, 34,110,000 goats and 11,885,-
buffalo.

ustry. Industrially, China is still in
infancy. Development has been mainly
he erection of textile mills, silk and
r mills, match factories, tanneries and
w steel and cement mills. The produc-
of consumer's goods far exceeds that
producer's goods, which must still be
orted. Much of the industry which had
n developed in the lower Yangtze val-
and the Shanghai area was moved
ward in 1938 and 1939 to escape Japa-
capture, and southward in 1948 to
pe Communist control.

he Communist regime is reported to be
centrating upon Manchuria as China's
industrial center and to be shifting some industries to the northwest. A five-year plan of industrial development beginning in 1953 was announced in Dec. 1952.

Trade. According to official reports, the U.S.S.R. and its satellites accounted for 75% of Communist China's total trade in 1953. The 1952 trade total was unofficially estimated at U. S. $2,000,000,000, and the 1953 total was officially placed at 36% more than that in 1952. Major exports include textiles and products, tung oil and pig bristles.

Communications. Exploitation of many of China's natural resources has been handicapped by the lack of internal communications. There is an extensive system of inland waterways and canals, however, and in central and south China most of the freight is carried by water.

The modern highway system now totals about 100,000 miles, but at least half of the system is in need of extensive repairs. The railway system of some 15,672 miles, concentrated in the lower Yangtze basin and in north China and Manchuria, has been rehabilitated and is being extended by the Communists. The main port is Shanghai.

Finance. The 1955 Communist budget estimated revenue at 31,192,520,000 people's yuan (2.37 yuan = U. S. $1) and expenditure at 29,736,720,000 yuan. The The Nationalist government on Formosa continued to depend on U. S. aid to balance its budget.

NATURAL FEATURES AND RESOURCES; CLIMATE. China has about 1¼ times the area of the continental United States. Its coast line is roughly a semi-circle, about 2,150 miles long. The greater part of the country is mountainous, and only in the lower reaches of the Hwang Ho and Yangtze Kiang are there extensive low plains. The principal mountain ranges are the Tien Shan, to the northwest; the Kunlun chain, which attains a maximum height of 23,890 feet, running south of the Takla Makan and Gobi deserts; and the Trans-Himalaya, connecting the Kunlun with the borders of China and Tibet. Manchuria is largely an undulating plain connected with the north China plain by a narrow lowland corridor. Inner Mongolia contains the relatively fertile southern and eastern portions of the Gobi. The large island of Hainan (13,500 sq. mi.) lies off the southern coast.

Hydrographically, China proper consists of three great river systems. The northern part of the country is drained by the Hwang Ho (Yellow), 2,700 miles long and mostly unnavigable. The central part is drained by the Yangtze Kiang, the fifth longest river in the world (3,100 mi.). The Si Kiang in the south is about 1,650 miles long and navigable for a considerable dis-

tance. In addition, the Amur forms part of the northeastern boundary.

Minerals. Mineral resources are considerable. Iron ore, far less plentiful than coal, is mined principally in the lower Yangtze valley and in north China. Tin, mined in Yunnan and southwest Szechwan, has been a major mineral export. Of some rarer minerals, notably antimony and tungsten, China is sometimes the world's leading producer. Lead, zinc, silver, mercury and gold are also mined, and discovery of uranium has been reported. Mineral production in 1954 was estimated as follows: coal, 31,990,000 metric tons; (1953) iron ore, about 5,000,000 tons; tin (in ore), 9,000 tons; tungsten concentrates, 20,000 tons.

Forest and Fisheries. China urgently needs reforestation. Most remaining forests are on inaccessible mountain slopes. Bamboo is cultivated in groves throughout the country south of the Tsinling mountains. Both sea and river fisheries are rich and varied, and fresh or salted fish is a staple food in many districts. Coastal fisheries are at Shantung, Chekiang and Kwantung.

Climate. There are great diversities of climate. North China has the coldest winters in the world for its latitude (23.5° average in January at Peiping). The Yangtze valley is warmer, with winter temperatures more like those of Britain, while the south has warm subtropical winters. Summer temperatures are uniformly hot throughout China (about 79° in July at Peiping and 82° at Hong Kong). South China receives regular rainfall averaging from 40 to 60 inches annually, but in the north rainfall is irregular and not as heavy; droughts and floods are common.

FORMOSA (TAIWAN)—Status: Province (Part of Republic of Nationalist China).

Area: 13,836 square miles.

Population (census June 1953, excluding troops and militia): 8,260,961.

Capital: Taipei (Taihoku), 573,597.

Foreign trade (1954): exports, U. S. $97,755,000; imports, $110,217,000.* Chief exports: sugar (60%), tea (10%), rice (8%).

Agricultural products (est. 1954–55, in metric tons): raw sugar, 619,000; rice (paddy), 2,220,000; tea, bananas, pineapples, sweet potatoes.

Industries: sugar refining, canning, cement, chemicals, wood, paper.

Minerals: coal (1954: 2,000,000 metric tons), gold, petroleum, silver, sulfur.

* Excludes U. S. aid imports ($110,200,000) and those with self-provided exchange.

Formosa is a large island in the western Pacific, separated from China to the west by the Taiwan straits (narrowest point, 90 mi.). The Pescadores (Bokoto) (about 77 sq. mi.) and other outlying islands became administratively a part of Formosa under Japanese rule. Formosa, ceded to Japan in 1895 after the Chinese-Japanese War, remained Japanese until it was restored to China in 1945, in accordance with the Cairo declaration. It was the only territory under the control of the Nationalist regime after 1949.

Most of the inhabitants are of Chinese stock. There are also about 140,000 aboriginal tribesmen in the mountainous interior. Sugar cane, grown under the plantation system, is the most prosperous of the island's developments.

Formosa is one of the world's chief sources of camphor, and government monopolies of camphor, salt, opium and tobacco have been established. Forest resources are enormous. Railway mileage totaled (1953) about 2,725 and roads 16,380

The climate is tropical, with temperatures above 60° (except in mountain areas) every month except January.

SINKIANG (CHINESE TURKESTAN)—Status: Chinese province under joint Chinese-Soviet economic control.

Area: 705,969 square miles.

Population (census 1953): 4,873,608.

Capital: Tihwa (Urumchi) (20,000).

Chief exports: wool, cotton, furs, skins, sheep, cattle, horses.

Agricultural products: wheat, corn, rice, cotton, sorghum, beans, fruit.

Minerals: jade, gold.

Largest and most remote of China's provinces, Sinkiang experienced violent Mohammedan uprisings after 1932. The Chinese Governor, Gen. Shen Shih-tsai, re-established order in 1937 with Soviet support. In 1943, Russian troops withdrew, taking with them all their economic installations, but following World War II Soviet influence was gradually restored and the province surrendered to the Chinese Communists in late 1949. On Mar. 27, 1950 the People's government signed an agreement with the Soviet Union providing for joint exploitation of Sinkiang's natural resources.

Chinese constitute about 5 per cent of the population; there are 14 other ethnic groups, mostly Turki tribes of the Sunni Moslem faith. The Mongol tribes are Lamaist Buddhists. There are vast stretches of desert and arid land, and the limited area under cultivation is mostly in oases and river valleys.

Almost all of the limited foreign trade is conducted with Russia. About 85 per cent of the population lives in the western section of the province, adjacent to the Soviet Union and separated from China by desert land.

TIBET—Status: Nominally independent under Chinese Communist control.

Area: 469,294 square miles.

Population (census 1953): 1,273,969.

Capital: Lhasa (50,000).

Ruler: The 14th Dalai Lama (Lingtsa Pamo Tontrup).

Monetary unit: Sang.

Exports: wool, live animals, salt, hides, borax, tea, musk.

ricultural products: barley, fruits, , vegetables.
ierals: borax, salt, coal, gold.

et, north and northeast of the Hi- yas, is the highest country in the , averaging 16,000 feet in elevation having many peaks ranging up to than 25,000 feet. Chinese suzerainty Tibet was established in the 18th ry. The area was invaded by a British itionary force in 1904, but the Anglo- an Convention of 1907 recognized 's influence and stipulated that er Russia nor Britain should inter- n Tibet's affairs.

nese Communist troops invaded the n October, 1950. An agreement signed Communist China in May, 1951, rec- ed the Dalai Lama as spiritual and ral ruler but made Tibet virtually a se province.

religion and predominant factor in s social system is Lamaism, a late of Buddhism modified by animism rimitive magic. Education is in the l of the many monasteries, some of have more than 1,000 monks. A number of the population are lamas, celibates. Both polyandry and po- are practiced.

climate is extremely variable. Total precipitation in most of the country y about 8 inches.

Colombia (Republic)

(República de Colombia)

: 439,714 square miles.
ulation (est. 1954): 12,381,000 (mes- 8%; white, 20%; Indian, 7%; Negro,

sity per square mile: 28.2.
ident: Lt. Gen. Gustavo Rojas Pinilla.
cipal cities (census 1951): Bogotá, (capital); Medellín, 328,294 (min- Barranquilla, 276,199 (seaport); Cali, (coffee, mining); Cartagena, 111,291 rt); Bucaramanga, 102,887 (indus- enter).
etary unit: Peso.
guage: Spanish.
gion: Roman Catholic.

RY. Colombia, nearly nine times the New York state, is the only country uth America with frontage on both cific and the Caribbean. Its northern was one of the first parts of the as to be visited by Spanish explorers. , the first permanent European set- t on the American mainland, was d in 1510, Santa Marta in 1525, and in 1538.

Granada, as Colombia was called 1861, was comparatively neglected the Spanish colonial era. After win- ndependence from Spain during a en-year struggle ending in 1824, the y established a republic in 1831, in- cluding the area that now is Panamá. Intermittent civil war plagued Colombia until 1903, when Panamá, with United States backing, seceded from the republic.

The century-old boundary dispute with Peru over Leticia almost led to war in 1931, but a settlement was arranged through the League of Nations in 1934–35.

Bogotá, host at the time to the Ninth International Conference of American States, was swept by a destructive but unsuccessful revolt on April 9, 1948, following the assassination of Jorge Eliécer Gaitán, extremist Liberal leader. The 1949 presidential election, held on Nov. 27 and boycotted by the Liberals, was won by the Conservative candidate, Laureano Gómez, who took office on Aug. 7, 1950. Gómez returned to office on June 13, 1953, after being on leave of absence since Oct. 1951, but was immediately ousted in a *coup d'état* led by Lt. Gen. Gustavo Rojas Pinilla, who became President.

GOVERNMENT AND DEFENSE. Colombia's President, who appoints his own Cabinet, is elected every four years and is not eligible to succeed himself immediately. The Senate—upper house of Congress—has 63 members elected for four years by direct vote. The House of Representatives of 123 members is directly elected for two years. All male citizens over 21 may vote.

A term of military service is compulsory for men between twenty-one and thirty. The strength of the peacetime army averages about 13,000–14,000. With 2,500 personnel, the navy has two modern destroyers, one sea-going gunboat, three patrol craft, three frigates, six river gunboats and several launches. An infantry battalion and two frigates served in Korea.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is free and technically compulsory. Illiteracy (7 years and over) was officially placed at 37% in 1951. By law, 10 per cent of the national budget goes for education. In 1953, 14,223 primary schools reported enrollment of 1,072,532 pupils, 585 secondary schools 65,618 and 220 commercial schools 17,340. In addition to the national University, founded at Bogotá, 1572, there were 20 other universities and 18 institutes and schools of higher learning.

Because of the former isolation of the interior, the language and manners in Bogotá are more purely Castilian than anywhere else in South America. The white race retains its social and economic dominance over Indians and Negroes, but race mixture is steadily reducing its numbers. In recent years, notably since adoption of a new labor code in 1944, the working classes have made important gains, including minimum wages, vacations and holidays, accident and sickness benefits, and the protected right of union organization.

Most of the people live by farming and cattle herding, but only a small part of the land is cultivated, and that by primitive means. Colombia's coffee, the nation's principal crop, is a mild variety that does not compete with Brazilian types. Exports in 1954 totaled 5,753,819 bags of 132 pounds each. Other crops include bananas, coconuts, tobacco, sugar cane, corn, cotton, cacao, beans, rice, tropical fruits and, in the temperate regions on plateaus and in mountain valleys, cereals and potatoes. Cattle were estimated at 15,512,000 in Dec. 1950, according to U. N. statistics.

The leading manufacturing industries are foodstuff processing, textiles and beverages.

To protect foreign trade balances, the government has taken over control of exports and imports. Trade statistics, in millions of pesos, are as follows:

	1952	1953	1954
Exports	1,183.1	1,490.3	1,640.9
Imports	1,038.4	1,366.8	1,626.6

Leading exports in 1954 were coffee (84%), petroleum (12%) and bananas (2%). Leading customers were the U.S. (79%), Netherlands Antilles (petroleum for refining) (5%) and western Germany (5%); leading suppliers, the U. S. (63%), western Germany (8%) and Britain (5%).

Difficult terrain makes Colombia's rail and road building costly. Rail mileage was put at 1,782 (main-line track) in 1951; and improved highway mileage at 12,600. Air transit is well advanced, and there are 4,620 miles of navigable waterways.

Colombia's 1955 budget, as amended to March 31, 1955, provided for expenditures of 1,629,000,000 pesos. The public debt on Dec. 31, 1953, totaled 557,200,000 pesos (excluding some arrears of interest).

NATURAL FEATURES AND RESOURCES; CLIMATE. Through the western half of the country, three Andean ranges run north and south, merging into one at the Ecuadorean border. The eastern half is a low, jungle-covered plain, drained by spurs of the Amazon and Orinoco, inhabited mostly by uncivilized Indians. The fertile plateau and valley of the eastern range is the most densely populated part of the country.

Rich in minerals, Colombia has the third largest oil industry in Latin America (70 per cent controlled by U. S. interests). Production in 1954 was 39,977,435 barrels. The country is also rich in platinum and has world-famous emerald mines at Muzo in the eastern Andes. Mineral production includes gold (1954: 377,466 troy ounces), silver (112,533 ounces) and crude platinum (exports 1954: 28,465 ounces).

Colombian forests, covering a large part of the country from the western Andes to the eastern plain, are a great but little exploited source of wealth. Products inclu vanilla, quinine, ipecac, sarsaparilla, gu and balsams, tanning agents, dyewoo hardwoods and rubber.

Alligators along many of the large riv are hunted for hides. The rivers and la abound with fish and turtles, a source commercial tortoise shell.

Although Colombia lies almost entir in the north torrid zone, its climate tempered by prevailing winds and hi altitudes in the western, mountainc area. High temperatures and excessi moisture prevail in the lower areas, alc the coast and in the larger river valle At Bogotá, the mean temperature stays the 50's every month of the year; ann rainfall there is 42 inches.

Costa Rica (Republic)

(República de Costa Rica)

Area: 19,238 square miles.
Population (est. Dec. 31, 1954): 932. (white and mestizo, 97%; Negro, 2%; dian, 1%).
Density per square mile: 48.5.
President: José Figueres Ferrer.
Principal city (census 1950): San J 86,909 (capital and only large city).
Monetary unit: Colón.
Language: Spanish.
Religion: Roman Catholic (state).

HISTORY AND GOVERNMENT. Costa R was discovered and probably named Columbus in 1502. A Spanish provinc early as 1530, it proclaimed its indepe ence in 1821, and was a member of Central American Union from 182 Aside from boundary disputes with amá and Nicaragua, Costa Rica's mo history was comparatively tranquil the spring of 1948, when a brief civil followed congressional annulment of p dential elections in which Otilio Blanco defeated the Government c date. Leftist-supported government surrendered on April 20, and on May 11-man junta took over and a Consti Assembly was elected on Dec. 8, 1948. Assembly met on Jan. 16, 1949, confi Ulate as President-elect, and, after dra a new Constitution, dissolved on Nov. which date Ulate took office. José Fig Ferrer was elected to succeed him i July 1953 elections.

Under the 1949 Constitution the dent and one-house Congress of 45 bers are popularly elected for ter four years.

The army was abolished in 1950. is a police force of 1,000 and 700 guardsmen.

SOCIAL AND ECONOMIC CONDIT Costa Rica's illiteracy rate (estima 21.2% in 1950) is the lowest in tral America, with elementary edu

and compulsory. In 1951 there were primary schools (116,157 pupils) in 1950, 24 secondary schools and 7 nical schools. The National University San José. The English language has taught in all of the primary schools 1944.

ffee, bananas, abacá fiber and cacao he basic products of Costa Rican agri-ure, which is characterized by the alence of small land holdings. Cotton, r cane, tobacco, corn, beans, rice and toes are subsidiary crops. Cattle are d mainly for dairying.

ffee production totaled 383,000 bags 2 lb. each in 1953–54.

nufacturing is virtually limited to ly-consumed products. Chief among products are furniture, fine wood-and tobacco.

reign trade data (in millions of U. S. rs) are as follows:

	1952*	1953*	1954*
rts	73.37	80.15	80.95
rts	67.87	73.67	80.65

nana valuation adjusted.

ading customers in 1954 were the U. S.), Germany (16%) and Canada ; leading suppliers, the U. S. (57%), any (9%) and Britain (8%). Leading ts were coffee (43%), bananas (41%) cacao (10%); imports included tex-machinery, vehicles and petroleum ucts.

1952 the rail system totaled approxi-ly 660 miles; improved highways, 950 ; unimproved highways, 3,750 miles. ding to *Lloyd's Register*, the mer-marine had 70 vessels (100 tons and aggregating 200,515 gross tons on 30, 1954.

1955 budget (preliminary) balanced 9,200,000 colones. The public debt was 39,000 colones on Dec. 31, 1954.

URAL FEATURES AND RESOURCES; ATE. Most of Costa Rica is elevated and, from 3,000 to 6,000 feet above vel, with sharp slopes to the Carib-and Pacific. Cocos Island, about 300 off the Pacific Coast, is under Costa sovereignty; although it is mostly al jungle, it is of potential strategic tance in the defenses of the Panama

d is the most valuable mineral, al-h silver, manganese, mercury and also exist. Oil indications have been in the south.

mountain slopes yield such for-oducts as balsa, cedar, dyewood, ma-y and rosewood.

weather is cool and refreshing in osta Rican highlands, with average ratures of 68°, and San José is in-ng in importance as a tourist resort. Along the coasts, the mean annual temperature is about 82°. The rainy season is usually from April or May to about December; rainfall amounts to 70 inches yearly on the Pacific coast and more than 130 on the Atlantic or Caribbean.

Cuba (Republic)

(República de Cuba)

Area: 44,217 square miles.
Population (census 1953): 5,829,029 (white and mulatto, 75%; Negro, 24%; Mongoloid, 1%).
Density per square mile: 131.8.
President: Fulgencio Batista y Zaldívar (provisional).
Principal cities (census 1953)*: Havana, 783,162 (capital, industrial center); Holguín, 226,644 (trading center); Camagüey, 204,254 (cattle, sugar); Santiago de Cuba, 166,565 (seaport, mining); Santa Clara, 144,630 (sugar, mining); Cienfuegos, 99,000 (sugar port).
Monetary unit: Peso.
Language: Spanish.
Religion: Roman Catholic.

* Preliminary figures.

HISTORY. The history of Cuba, largest of the many Caribbean islands, began for white men with discovery by Columbus on his first voyage in 1492. It was a Spanish colony until 1898, except for brief British occupancy in 1762–63. Open war raged between Cuban rebels and Spanish troops from 1867 to 1878. Fighting broke out again in 1895, and when the United States threatened to intervene, Spain felt its national dignity had been wounded. Strained relations between Spain and the U. S. led to war when the U. S. battleship *Maine* was blown up in Havana harbor in Feb. 1898. At the end of the brief Spanish-American War, Spain gave up Cuba.

Until creation of the Cuban republic in 1902, the island was ruled by United States military authorities. For the first thirty-two years of the republic's life, the United States held the right to intervene in any crisis—a right which was invoked during insurrections which occurred in 1906, 1912 and 1917.

Corruption bedeviled Cuba after World War I, particularly during the eight-year presidency of Gerardo Machado, who was ousted in a 1933 revolution. Five different Presidents tried to rule in the next few months; out of this political whirligig came the dictatorship of Fulgencio Batista, who climbed almost overnight from army sergeant to army commander in chief. In 1940 Batista legalized his reign by being elected to a four-year presidential term. He was succeeded in 1944 by Dr. Ramón Grau San Martín. Carlos Prío Socarrás won the June 1948 elections and took office Oct. 10 for a 4-year term. Prío was ousted March 10, 1952, however, by Batista, the

former dictator, who became provisional President on April 4. He was elected for a 4-year term Nov. 1, 1954.

GOVERNMENT. Cuba's President is elected for a 4-year term by direct popular vote, in which women take part. The Cabinet, though named by the President, is responsible to the Congress—a 54-member Senate and a 136-member House, both elected for four years. Much Cuban lawmaking is done through presidential decree, reviewable by the Supreme Court. Cuban politics are dominated by personalities, with the result that there are frequent shifts in political grouping.

Compulsory military service was established in 1942. The army numbers about 15,000; the navy, 5,000, manning some twenty small coastal craft. The air force has 50 combat planes. Two U. S. air bases and one naval base built in World War II at a cost of more than $30,000,000 were turned over to Cuba in 1946. However, the United States retained its long-held naval base at Guantánamo.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory from 7 to 14. In 1952–53 public primary schools had 634,924 pupils; private, 98,724. Literacy was estimated at close to 70 per cent. The University of Havana, founded in 1721, had 18,379 students in 1952–53; Oriente University (Santiago), 1,256; Santa Clara, 767; Catholic University of Villanova (Havana), 523.

Half of the employed are engaged in agriculture, which normally accounts for more than 90 per cent of the exports. Often jolted by fluctuations in the price of sugar, of which it produced 5,400,000 short tons in 1954. Cuba is now seeking to vary its agricultural production. About two-thirds of the cultivated area is devoted to sugar cane. Other important crops are tobacco (1953–54 output: 40,000 short tons), coffee, cacao, fruits, vegetables, henequen, corn, pineapples and rice. The livestock and dairy industry has progressed greatly.

Manufactured products include sugar, molasses, syrup, brandy, rum, alcohol, cigars, cigarettes, cigar boxes, sponges, cement, cordage, salt, dressed hides, dairy products and canned goods. The leading industry is the processing of sugar cane and its products.

Foreign trade (in millions of pesos):

	1952	1953	1954*
Exports	675.3	640.3	539.0
Imports	618.3	489.7	470.0

* Provisional.

Leading exports in 1954 were sugar (73%), tobacco and products (8%) and molasses (5%). Leading customers in 1953 were the U. S. (61%), Britain (12%) and Japan (6%); leading suppliers, the U. S. (76%), Netherlands Antilles (3%) an India (3%).

Mainline railroads totaled 3,017 miles 1949, plus 7,870 miles of industrial trac age, mostly on sugar estates. Improv highways totaled 2,320 miles. Domest airlines are operated by the Cuban Nation Aviation Company, a Pan American su sidiary.

The budget for the fiscal year 1954 balanced revenue and expenditure $311,414,817. The consolidated public de totaled $395,771,600 on Dec. 31, 1954.

NATURAL FEATURES AND RESOURCE CLIMATE. Long, narrow Cuba has ma mum dimensions of 730 by 160 mil and is approximately the same size Pennsylvania. It has mountainous areas the southeast, central area and west, b the rest is flat or rolling. The coastlin measuring more than 2,100 miles, is dented by many large bays. Cuba's num ous short rivers are of slight importan commercially.

Rich mineral beds, mostly in the east province of Oriente, include iron, copp manganese, chromium and nickel. Iron reserves, estimated at 3,500,000,000 to are 90 per cent held by U. S. steel interes Virtually all mineral exports go to United States.

Cuba has an estimated 3,500,000 acres wooded land, with valuable cabinet woo such as cedar and mahogany, as well fibers, resins and oils.

The tempering influence of the tr winds on the island's tropical clim makes Havana's average temperature with a range of only 10° (71° to 81°). dry season lasts from November to A and the warmer wet season occurs th after. Mean annual rainfall at Havan about 50 inches.

Czechoslovakia (Republic)

(Československa Republika)

Area: 49,330 square miles (excluding thenia).

Population (est. 1954): 12,948,000 (Czech, 67.0%; Slovak, 23.7% German, 3 Magyar, 3.2%; Polish, Jewish and ot 2.9%).

Density per square mile: 262.6.

President: Antonín Zápotocký.

Premier: Viliam Široký.

Principal cities (est. 1948): P (Praha), 932,024 (capital, industrial ter); Brünn (Brno), 277,196 (textiles) trava (Moravska Ostrava), 183,794 and steel products); (1947): Brati 172,664 (Danube port); Pilsen (P 118,152 (Skoda steel works).

Monetary unit: Koruna.

Languages: Czech (67%), Slovak (German (4%), Hungarian, Ukra Polish.

igions (est. 1947): Roman Catholic, Czechoslovak Church, 8%; Protes- 7%; Greek Orthodox, .5%; Jewish, others and no confession, 7%.

ORY. Few nations have had a more history than Czechoslovakia, which won and lost its independence n 30 years. Born out of World War I, oung republic was an early victim of aggression in 1938–39. At its rebirth 45 following World War II, it enjoyed easure of its traditional democracy the shadow of Soviet control. During ext three years Czechoslovakia made the greatest economic progress of all oviet satellites, but the government subjected to increasing Communist ire, climaxed in the spring of 1948 by Communists' seizure of control and esignation of President Beneš.

was probably about the 5th century hat the ancestors of the Czechs and ks settled in the region of modern oslovakia. Slovakia passed under Mag- omination, but the Czechs founded ngdom of Bohemia, which was among ost powerful in Europe for centuries. an encroachment began in the 12th ry and was furthered by the election 6 of a Hapsburg as Bohemian King. the Czechs rebelled in 1618 and were ed at the Battle of White Mountain 0, they were ruled for the next 300 by the Hapsburgs as part of the -Hungarian Empire. In World War I, and Slovak patriots, notably Thomas asaryk and Milan Stefanik, went d to promote support for Czech- independence, while Czechoslovak s fought against the Central Powers. ct. 28, 1918, Czechoslovakia pro- d itself a republic; shortly there- Masaryk was unanimously elected resident.

veen World Wars I and II, Czecho- ia supported the League of Nations, d the Little Entente with Yugoslavia umania, and co-operated closely with . President Masaryk resigned in two years before his death at the f 87, and was succeeded by Dr. d Beneš.

nwhile, the German plan of aggres- as under way. Czechoslovakia's Ger- minority, led by Konrad Henlein, demanding autonomy. The govern- granted many concessions which, of were not enough to suit the Ger- The beginning of the end came at unich conference on Sept. 30, 1938, France and Britain agreed that the could take the Czech Sudetenland German border. Dr. Beneš resigned ober 5, and Czechoslovakia became al union in the German orbit. The in the meantime, had seized Czech- ia's Teschen area, and Hungary had areas in Slovakia and Ruthenia. In March 1939, the Nazis set up Slovakia as a puppet state, declared Bohemia and Moravia to be Nazi protectorates, and gave Hungary the remainder of Ruthenia. Both Slovakia and Bohemia-Moravia were occupied by German troops.

Dr. Beneš organized a government-in-exile in London in 1940, with Jan Šrámek as Premier and himself as President. Soon after the government returned to Czechoslovakia in April 1945, Ruthenia, the easternmost province, was ceded to Russia. On July 3, 1946, Communist Klement Gottwald formed a six-party coalition Cabinet. Amid increasing pressure from Moscow, Gottwald's Cabinet remained in office until the bloodless *coup d'état* of Feb. 23–25, 1948, when the Communists seized complete control. President Beneš stayed on until June 7, when he resigned following parliamentary elections in which the Communists and their allies were unopposed. Parliament elected Gottwald to the presidency, and Communist Antonin Zápotocký succeeded to the premiership. Beneš died Sept. 3, 1948. On the death of Gottwald Mar. 14, 1953, Zápotocký became President and Viliam Široký was named Premier.

GOVERNMENT AND DEFENSE. Czechoslovakia's Soviet-type Constitution, promulgated on June 8, 1948, makes the 300-member unicameral Parliament the supreme organ of the state with control over courts and civil service. The government is headed by the President, elected by Parliament for a seven-year term, and the Prime Minister and his Cabinet who are appointed by the President but are responsible to Parliament. The Constitution contains nominal guarantees of civil liberties and provides that the state shall conduct all economic activity in the public interest on the basis of a single economic plan. Provision is made for limited Slovak autonomy under an elected council of 100 members.

The army, based on a cadre of Czech units which fought with the Red Army during World War II, has been trained and equipped by the Soviet Union with organization and armament on its pattern. Estimated strength is 300,000, including police.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is low in Bohemia, higher in Slovakia, and probably less then 2% for the whole country. In 1953 there were 9,045 elementary schools with 1,030,000 pupils, 2,745 higher grade schools with 473,000 and 304 secondary schools with 80,300. Vocational pupils numbered 113,000. The 17 institutions of higher learning had 42,000 students.

One of the country's greatest problems is the ethnic variety of its population. In view of the traitorous role played by German and Hungarian minorities in the disintegration of Czechoslovakia in 1938–39,

the government decided to expel them from the country. Many Hungarians, however, were permitted to remain.

Decrees of the government issued on Oct. 24, 1945, ordered the nationalization of almost all industrial corporations with more than 500 employees. All national resources, public utilities, transport, commercial banks and insurance companies became state property. Other laws enacted April 28, 1948, nationalized all enterprises employing more than 50 as well as concerns of any size operating in key industries.

Distribution of large estates had already been accomplished following World War I by the 1919 Land Reform Law.

Approximately 41 per cent of the total area is arable, 31 per cent forest, and 15 per cent meadows and pastures. Sugar beets (1949: 4,466,000 metric tons), wheat (1950: 1,590,000 tons), corn and high-grade barley and hops for beer brewing are cultivated in the low-lying areas. In more elevated regions, the cultivation of potatoes (1950: 7,484,000 tons), rye (1,250,000 tons) and oats predominates. Higher lands are also used for growing fodder crops or for grazing. In 1951 there were 4,100,000 cattle and 3,700,000 hogs and, in 1950, 480,000 sheep and 640,000 horses.

The highly developed position of Czech industry is important in foreign trade, since output far exceeds domestic needs. Abundance of coal and presence of iron ore give the country a big metallurgical industry. Steel production was unofficially estimated at 4,430,000 metric tons in 1954; pig iron output, about 2,800,000 tons in 1953. The Skoda steel works at Pilsen are one of the largest in Europe.

Other industries are glass, porcelain and pottery making, while large forest areas provide raw material for the timber, paper and cellulose industries. Also highly developed are the textile industries, including cotton, wool, flax and jute production, and the shoe industry. The famous Bat'a shoe factories are at Zlin.

Foreign trade is now a state monopoly managed by government corporations. In 1950 exports totaled U. S. $800,000,000 and imports, $653,000,000. Main destinations of exports were the U.S.S.R. 28% and Poland, Rumania, Hungary and Bulgaria 21%. Main sources of imports were the U.S.S.R. 29% and Poland, Rumania, Hungary and Bulgaria 26%. Leading exports were iron and steel manufactures, machinery, textiles, glass and vehicles.

Czech railroads, totaling 8,200 miles in 1948, form a direct connection between the systems of eastern and western Europe, making the country an important communications center. Highway mileage totaled 39,560. Internal waterways and rivers connect Czechoslovakia with the Black Sea and the North Sea.

National budget estimates in recent years have been as follows (in billions of korunys):

	1952	1953	195
Revenue	324.3	435.2	8
Expenditure	323.5	430.9	8

* The koruna was revalued May 30, 1953.

NATURAL FEATURES AND RESOURCES. CLIMATE. Czechoslovakia lies athwart the great central European watershed between the Baltic, Black and North Seas. Mountains form several of its boundaries. Many of the valleys are made fertile by the Danube, Elbe and Vltava (Moldau) rivers and their tributaries.

Most important of Czechoslovakia's varied minerals are pit coal and lignite, with the principal coal fields in the Ostrava-Karvinná area, connected with the Polish fields of Upper Silesia. Production for the year 1953 was estimated at 20,194,000 metric tons of hard coal and 34,225,000 tons of lignite.

Production of iron ore in 1953 was about 2,500,000 tons; much ore is imported to meet the demands of Czechoslovakia's flourishing iron and steel industry. Excellent porcelain raw materials, particularly kaolin, are obtained in western Bohemia and southern Moravia. Other minerals are antimony, gold, magnesite, oil, uranium, silver and zinc.

Czechoslovakia is one-third wooded and is one of the richest forest lands in Europe with a high production of lumber.

At Prague, in Bohemia, the average annual temperature is 48.2° (29.6° in January; 66.2° in July) and the average annual rainfall is 19.6 inches. The corresponding figures for Presov, in eastern Slovakia, are 46.8° and 25.6 inches.

Denmark (Kingdom)

(Kongeriget Danmark)

Area: 16,575 square miles.
Population (est. Jan. 1, 1955): 4,42[illegible] (almost entirely Danish).
Density per square mile: 266.9.
Sovereign: King Frederick IX.
Prime Minister: H. C. Hansen.
Principal cities (est. 1955): Copenh[illegible] including suburbs, 961,400 (capital); [illegible]hus, 118,700 (shipbuilding); Odense, [illegible]200 (meat, dairy products); Aa[illegible] 82,700 (seaport).
Monetary unit: Krone.
Language: Danish.
Religion: Evangelical Lutheran (S[illegible]

HISTORY. A tiny nation, Denmark was powerful and feared. After conv[illegible] of the Danes to Christianity in the 9t[illegible] 10th centuries, Canute the Great, K[illegible] Denmark, conquered England in 10[illegible] the 12th and 13th centuries, under Valdemar I and II, Denmark reach[illegible]

nith of its power. By the terms of the ion of Kalmar in 1397, the nation was ited with Norway and Sweden. Sweden t the Union in 1520, but Denmark and rway remained united until 1814. In e Napoleonic Wars Denmark picked the ong side; when Napoleon was defeated, rway was given to Sweden and Helgo- nd to Britain in 1814. Denmark lost ain in 1864 when, after a war with stria and Prussia, it lost Holstein, hleswig and Lauenburg to Prussia.

The country, which had become a liberal nstitutional monarchy in 1849, stayed utral in World War I, after which a ebiscite returned to it a part of North hleswig. In 1917 Denmark sold the Virgin ands to the United States for the price $25,000,000.

On May 31, 1939, eager for peace, Den- rk signed a 10-year nonaggression pact th Germany. Less than a year later, on ril 9, 1940, Germany invaded neutral nmark. The British countered by oc- pying the Faeroe Islands and Iceland. land declared its complete independence m Denmark in 1944, thus breaking a ion which had existed since 1280.

To save the country from destruction, ng Christian X accepted the German upation without armed resistance, and Danish policy became one of passive istance against Hitler's attempts to form "model protectorate." During 1944–45, Danish underground became increas- ly active and effective.

Following the German surrender in 1945, Danes quickly took over their govern- nt again with Social Democrat Vilhelm hl as Prime Minister. Buhl resigned en his party lost ground in the national ctions of Oct. 30, 1945, and Knud Kris- sen formed a new all-Liberal Cabinet Nov. 1945. He lost the confidence of the keting in Oct. 1947, and, after elections which the Social Democrats increased ir plurality, Hans Hedtoft was named me Minister on Nov. 11, 1947. His party n the largest block of seats in the Sep- ber 1950 elections but was forced to d the next month to a Liberal-Conserv- ve Cabinet headed by Erik Eriksen, a eral. Hedtoft returned to office in Sept. 3, with an all-Social Democrat Cabinet. on his death in Jan. 1955, H. C. Hansen ame Prime Minister.

LER. Frederick IX, of the house of leswig - Holstein - Sonderburg - Glücks- g, born March 11, 1899, became King il 20, 1947. In 1935 he married Prin- Ingrid of Sweden, by whom he has e daughters: Margrethe (heiress appar- born April 16, 1940), Benedikte (born 4) and Anne-Marie (born 1946). The g's uncle is King Haakon VII of Nor-

GOVERNMENT AND DEFENSE. Under the Constitution of 1953, Denmark is a hereditary monarchy. Legislative power rests jointly with the King and the unicameral Folketing of 179 popularly-elected members, two of whom represent the Faeroes and two Greenland. The Folketing is elected for four years but is subject to earlier dissolution by the King. The Constitution authorizes the transfer of some sovereign powers to international organizations under certain circumstances. The Cabinet, presided over by the King, who designates the Prime Minister, is the highest executive power, handling new bills and important measures.

The lineup in the Folketing (elections of Sept. 22, 1953), was Social Democrat 74, Agrarian Liberal 42, Conservative 30, Radical Liberal 14, Communist 8, others 11.

Military service is compulsory. The army, numbering about 12,000, has been re-equipped with British assistance. The navy has 8 frigates and escort vessels, 3 submarines, 6 patrol vessels and several smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. Under the Danish system, schooling is compulsory from 7 to 14 and, for the most part, free. The famous popular high schools (*folkehöjskoler*) for adults number 55, all private but assisted by the state. The Royal University of Copenhagen, founded in 1479, has about 5,700 students and that of Aarhus, about 1,550. Elementary, middle and secondary schools had 555,334 students in 1952. Illiteracy is practically unknown.

Social legislation is well advanced and provides for medical aid, poor relief, child welfare and workmen's compensation. The National Insurance Act requires everyone from 21 to 60 to belong to an approved sickness benefit society, to which the state also contributes. The co-operative movement is also well organized.

Approximately ninety per cent of the land is productive and about three-quarters is actually farmed. Agrarian reform laws have operated to bring about a large number of small holdings. About two-fifths of the cultivated area is devoted to cereals, led by barley, mixed grain, oats, rye and wheat. Root crops (fodder), potatoes and sugar beets also are important. The principal source of exports and of the nation's wealth is dairy farming and the production of bacon and pork (1954: 524,000 metric tons), butter (181,000 tons), beef and veal (202,000 tons), eggs (142,000 tons), cheese (81,000 tons) and milk (1953: 5,380,000 tons). Livestock in 1954 included 3,152,000 cattle, 4,840,000 hogs and 25,234,000 poultry.

Denmark produces primarily for home consumption, though some industrial products, such as Diesel motors, are large exports. The largest industries are food-

processing and iron and metal. Others include chemicals and pharmaceuticals, wood and paper, clothing, textiles, machinery, beverages and leather.

Trade statistics, in millions of kroner:

	1952	1953	1954*
Exports	5,874	6,100	6,549
Imports	6,645	6,880	8,024

* Preliminary.

Leading suppliers in 1954 were Great Britain (27%), western Germany (19%), Sweden (9%) and the Netherlands (6%). Chief customers were Great Britain (37%), western Germany (13%), the U. S. (7%) and Sweden (6%). Leading exports were meat and products (28%), dairy products, largely butter and eggs (27%), machinery (8%) and live meat animals (5%). Leading imports included coal, coke, petroleum and products, machinery, vehicles and textiles.

The Danish merchant marine, one of the largest in the world on a per-capita basis, had 704 ships (100 tons and over) of 1,613,903 gross tons on June 30, 1954, according to *Lloyd's Register*. Regular communications with foreign countries are mainly westward by sea. There are Swedish ferry services from Copenhagen to Malmö and from Helsingör (Elsinore) to Hälsingborg.

The main land route to the rest of the continent is the railway via Padborg and Schleswig to Hamburg. Railway mileage totals about 3,050, over half nationalized. Train-ferry services for inter-island communication are highly organized. Motor transport also is well advanced, with about 36,200 miles of roads in 1953.

Recent public-finance data are as follows (in millions of kroner):

	1953–54	1954–55*	1955–56†
Revenue	3,295	3,412	4,676
Expenditure	3,269	3,380	4,645

* Preliminary. † Budget estimate.

The total state debt on March 31, 1955, was 8,112,000,000 kr.

NATURAL FEATURES AND RESOURCES; CLIMATE. Denmark, only three miles from Sweden at the closest point, consists of the Jutland peninsula and the islands in the Baltic. The largest islands are Zealand, the site of Copenhagen; Fünen; and far to the east, Bornholm. The narrow waters to the north are called Skagerrak; and to the east, Kattegat.

The terrain of the whole kingdom is low but not flat. Its highest point is about 500 feet, and there are many lakes, ponds and short rivers. Sand dunes line the western Jutland coast almost without a break.

Mineral resources are negligible, although some coal, granite and kaolin are found on the island of Bornholm. Large quantities of coal and coke must be imported. Peat bogs supply an important source of fuel. Forest resources are unimportant.

The fishing industry, centered at Copenhagen but carried on also in the shallow fiords and in the deeper waters of the Baltic, North Sea and Skagerrak, is a basic part of the Danish economy. The 19[illegible] catch of about 353,000 metric tons was valued at 225,000,000 kr.

Denmark's climate is like that of eastern England, but with colder winters and warmer summers. The average annual temperature is 45.2° (61° in July; 32° in January). Average rainfall is 24 inches; thunderstorms are frequent in summer.

Outlying Territories

FAEROE ISLANDS—Status: Autonomous part of Denmark.
Area: 540 square miles.
Population (est. 1953): 33,000.
Capital: Thorshavn (pop. 1950: 5,593).
Governor general: C. A. Vagn-Hansen.
Principal products: cod, whale oil, cod liver oil, wool, fertilizers, skins and leather.

This group of 21 islands, lying in the North Atlantic about 200 miles northwest of the Shetland Islands, joined Denmark in 1386 and has since been part of the Danish kingdom. The islands were occupied by British troops during World War II, after the German occupation of Denmark. The principal pursuits are fishing and sheep grazing. The Faeroes have home rule under a bill enacted in 1948; they also have two representatives in the Danish Folketing.

GREENLAND—Status: Integral part of Kingdom of Denmark.
Area: 839,782 square miles (almost 85 per cent glacier).
Population (census 1951): 24,159 (native except for 1,269 Europeans).
Capital: Godthaab (second governmental seat, Godhavn).
Governor general: Poul Hugo Lundsteen.
Foreign trade (1953): exports, 40,289,000 kr. (66% to Denmark); imports, 57,891,000 kr. (84% from Denmark). Chief exports: cryolite, fish, hides and skins, whale and fish oil, marble.

Greenland, the world's largest island, was colonized in 985–86 by Eric the Red. Danish sovereignty, which covered only the west coast, was extended over the whole island in 1917. In 1941 the United States signed an agreement with the Danish minister in Washington, placing it under U. S. protection during World War II but maintaining Danish sovereignty. A definitive agreement for the joint defense of Greenland within the framework of NATO was signed on April 27, 1951. A large U. S. air base at Thule in the far north was completed in 1953.

Under 1953 amendments to the Danish Constitution, Greenland is part of Denmark and has two representatives in the Danish Folketing. There is a popularly elected council.

Greenland is the world's only source of ıtural cryolite, important in the manucture of aluminum. Trade (except cryoe) is a Crown monopoly. Large deposits lead, zinc and wolfram were found on e eastern coast of the island during the ars 1948–52.

Dominican Republic

(República Dominicana)

Area: 19,327 square miles.
Population (est. 1954): 2,347,000 (1950: estizo and mulatto, 60%; white, 28%; gro, 12%).
Density per square mile: 121.4.
President: Héctor Trujillo y Molina.
Principal cities (census 1950): Ciudad ujillo, 181,553 (capital; sugar); Santiago los Caballeros, 56,558 (tobacco); San dro de Macoris, 19,876 (sugar port); erto Plata, 14,843 (seaport).
Monetary unit: Dominican peso.
Language: Spanish.
Religion: Roman Catholic.

STORY AND GOVERNMENT. The Donican Republic (formerly San Domingo) cupies the eastern two-thirds of the isd which Columbus named La Española ow Hispaniola) when he discovered it his first voyage in 1492. The other third occupied by the republic of Haiti. The pital, Ciudad Trujillo, founded in 1496, the oldest white settlement in the West- Hemisphere.

The Dominican Republic was variously der Spanish, French and Haitian domiion until it established its independce in 1865 and then plunged into an unble political history. U. S. Marines occud it from 1916 to 1924, when a new nstitution was adopted. In 1930, Rafael nidas Trujillo y Molina, an army gen-l, was elected President. In office most the time during the succeeding 22 years, brought about improved irrigation, ds, sanitation and schools. His brother, ctor, was elected unopposed to succeed n in May 1952.

The President is elected every five years popular vote in which women take t, and he is eligible to be re-elected efinitely. The 21-member Senate and 47-member Chamber of Deputies are elected for five years. Each of the nty provinces has an appointed Govor.

There is a 12,000-man army and a small force. The navy has 2 destroyers, 9 ates and escort vessels and other ller craft.

CIAL AND ECONOMIC CONDITIONS. ication is free and compulsory from 7 14. In 1954, there were 2,641 schools n 246,734 students. The University of to Domingo had 2,560 enrolled. Accordto the 1950 census, 56.7% of those 10 rs of age and over were illiterate.

Primarily agricultural, the country produces sugar (1953–54: 735,000 short tons), coffee (557,000 bags of 132 lb. each), cacao (35,250 short tons), tobacco, bananas, rice, corn, cassava, beans, sweet potatoes.

Sugar refining, largely U. S. controlled, is the only important manufacture.

Foreign trade (in millions of pesos):

	1952	1953	1954
Exports	115.4	104.2	119.7
Imports*	96.9	86.5	82.8

* Includes duty-free merchandise.

Leading exports in 1954 were sugar (31%), coffee (26%), cacao (19%) and chocolate (7%). Chief customers were the U. S. (57%) and Britain (21%). The main imports, mostly from the U. S., are cotton goods, iron and steel products, chemicals and machinery.

Transit facilities include about 170 miles of public railway, more than 600 miles of sugar plantation railway, and more than 3,000 miles of highway.

The 1955 budget totaled $108,124,235. The Republic's foreign debt was retired in July, 1947, and the internal debt was retired in 1953.

NATURAL FEATURES; CLIMATE. Crossed from northwest to southeast by a mountain range with maximum elevations exceeding 10,000 feet, the country has fertile, well-watered land on the northeast side, where nearly two-thirds of the population lives. The southwest part is arid and with poor soil except around Ciudad Trujillo. The country has many good harbors.

There is little range in temperature, with mean January average of 74°, and August average of 81°. The elevated interior is cooler than the coastlands. Rainfall occurs for the most part from May to November.

Ecuador (Republic)

(República del Ecuador)

Area: 104,510 square miles.
Population (est. 1954): 3,567,000 (60% pure Indian, 25% mestizo, 15% white).
Density per square mile: 34.1.
President: José María Velasco Ibarra.
Principal cities (census 1950): Guayaquil, 258,966 (chief port); Quito, 209,932 (capital); Cuenca, 39,983 (trading center); Ambato, 31,312 (commercial center).
Monetary unit: Sucre.
Languages: Spanish, Quéchua.
Religion: Roman Catholic.

HISTORY. Mostly forested and mountainous and a little larger than Colorado, Ecuador has a long history replete with the forceful rule of dictators. The Spanish under Francisco Pizarro conquered the land in 1532 by defeating the Inca Atahualpa. The first revolt against Spain oc-

curred in 1809, but the victory was not complete until the Battle of Pichincha on May 24, 1822. Ecuador then joined Venezuela and Colombia in a confederacy founded by Simón Bolívar and known as Colombia, but withdrew amicably and became independent in 1830. The country's subsequent history has been largely one of dictatorships, notably under Juan José Flores, Gabriel García Moreno and Eloy Alfaro. Since 1900, administrations have fallen, usually by force, on the average of every two years. Shortly before the 1944 elections, President Carlos Arroyo del Río was forcibly replaced by José Velasco Ibarra, recalled from exile in Colombia. Velasco Ibarra, confirmed in office by the voters later in the year, followed the old pattern by assuming the role of dictator in 1946 and suppressing opposition.

Velasco was deposed in Aug. 1947, and after three weeks of confusion Carlos Julio Arosemena took over as provisional President until Sept. 1, 1948, when Galo Plaza Lasso, victor in the June 6 elections, took office. Velasco was returned to office in the June 1952 elections.

For more than a hundred years, Ecuador disputed its boundary with Peru, frequently resorting to arms. After hostilities started again in 1941, both nations submitted to mediation, and in 1944 Ecuador lost most of the disputed area. The dispute broke out anew in 1951.

GOVERNMENT AND DEFENSE. Under the 1946 (16th) Constitution, Ecuador elects a President for four years by direct vote, and he is ineligible for further service until at least one term intervenes. The Congress is bicameral, with a Senate and Chamber of Deputies. There are 17 provinces and one territory, the Galápagos Islands (3,029 sq. mi.), 650 miles off the coast.

Military service is compulsory at eighteen. The army numbers 10,000 and 40,000 reserves. A 1,030-ton training ship and several smaller craft make up the navy. There is an aviation school at Guayaquil and also a naval school at Salinas.

SOCIAL AND ECONOMIC CONDITIONS. Education is free, compulsory and under state control, but illiteracy is very high—43.7% (10 years of age and over) according to the 1950 census. In 1952 there were 3,706 primary schools with 352,396 pupils and 182 secondary schools with 32,390. There are universities at Quito (2), Guayaquil and Cuenca, and a law school at Loja.

Although agriculture is the basis of Ecuador's economy, less than 12,000,000 acres are devoted to it. Cacao, the chief crop (1953–54: 23,546 metric tons) is grown in coastal regions and lower river valleys, along with rice, sugar cane, coffee, bananas, tobacco and cotton. The plateaus and mountain valleys are used for grazing and dairying, and raising cereals and potatoes. After textiles, one of Ecuador's main industries is the manufacture of Panama hats, made of Toquilla straw.

Foreign trade (in millions of sucres):

	1952	1953*	1954*
Exports	1,200.2	1,135.2	1,503
Imports	879.1	951.0	1,288

* Provisional.

Chief exports in 1954 were cacao (35%), bananas (28%), coffee (27%) and toquilla hats (2%). Leading customers were the U. S. (65%), Colombia (8%) and Denmark (7%); leading suppliers, the U. S. (53%), Germany (11%) and Belgium (6%).

Railway mileage in operation in 1949 was 698, all nationalized. The principal road connects the chief port, Guayaquil, with Quito. Highway mileage in 1951 was 6,14 of which 2,943 mi. were paved.

In 1954 government revenue totale 591,106,000 sucres; expenditure, 647,032 000 sucres. On Nov. 30, 1954, the foreig debt was $32,231,000; internal debt, 247 184,000 sucres.

NATURAL FEATURES AND RESOURCES. CLIMATE. Two high and parallel rang of the Andes, traversing Ecuador fro north to south, are topped by tall volcan peaks. The region between the mou tains and the coast is hot and swampy.

Ecuador produced 18,479 troy oz. of go and 35,100 oz. of silver in 1954. Copp and lead are also mined. In 1954, 3,146,4 barrels of petroleum were produce The country is the world's chief sour of light, strong balsa wood, and export 3,819 metric tons in 1954. Exports rubber reached a high of 3,035 metric to in 1943; but no exports were reported 1953 or 1954. Dyewood, cinchona ba kapok and vegetable ivory are oth products of the vast forest.

Though Ecuador, as its name impli lies on the equator, its climate ranges fr tropical and temperate to the Arctic co ditions of its snow-capped peaks. Te peratures on the coast average 83°; on Andean plateau, about 46° to 70°. T rainy season extends from Decem through April or May.

Egypt (Republic)

(Misr)

Area: approximately 383,000 sq. mi.

Population (est. 1954): 22,469,000. (19 Egyptian, 95.4%; Arabian, 1.7%; Gr .6%; others, 2.3%).

Density per square mile: 58.7.

Chief of State and Premier: Gamal del Nasser.

Principal cities (census 1947): Ca 2,100,506 (capital); Alexandria. 925 (chief port); Port Said, 178,432 (Suez nal terminus); Tanta, 139,965 (rail center, Nile delta).

Ionetary unit: Egyptian pound (£E).
anguage: Arabic.
eligions: Mohammedan, 91%; Chris-
n (mostly Copt and Greek Orthodox),
; others, 1%.

TORY. Egypt, half again the size of
as, and the largest and most influential
the Arab states, has been an object of
-power controversy for centuries.

gyptian history dates back to about
0 B.C., when the kingdoms of upper and
er Egypt, already highly civilized, were
ted. Egypt's "Golden Age" coincided
h the 18th and 19th dynasties (16th to
1 centuries B.C.), during which the em-
was established. Persia conquered
pt in 525 B.C.; Alexander the Great sub-
d it in 332 B.C., and then the dynasty of
Ptolemies ruled the land until 30 B.C.,
n Cleopatra, last of the line, com-
ted suicide and Egypt became a Roman
vince. From 641 to 1517 the Arab Ca-
s ruled Egypt, and then the Turks took
nd made it part of their Ottoman Em-
. Napoleon's armies occupied the coun-
from 1798 to 1801. In 1805, Mohammed
leader of a band of Albanian soldiers,
me Pasha of Egypt, founding the pres-
line of rulers. After completion of the
z Canal in 1869, both the French and
ish took increasing interest in Egypt.

ritish troops occupied Egypt in 1882,
British Resident Agents became its
ial administrators, though it remained
er nominal Turkish sovereignty. On
18, 1914, this fiction was ended and
pt became a British protectorate.

ressure by Egyptian nationalists forced
ain to declare Egypt an independent,
reign state on Feb. 28, 1922, although
British reserved rights for the pro-
ion of the Suez Canal and the defense
gypt. On Aug. 26, 1936, by an Anglo-
ptian treaty of alliance, all British
ps and officials were to be withdrawn,
pt from the Suez Canal zone. When
ld War II started, Egypt remained
ral. But it early became a strategic
for Allied forces, both because of its
location for countering German of-
es in North Africa and because of the
importance of the Suez Canal. Brit-
mperial troops finally ended the Nazi
at to Suez in 1942 in the battle of
Alamein, which took place west of
andria.

itish troops were evacuated from Cairo
Alexandria in 1946, but Anglo-Egyp-
negotiations for revision of the 1936
y broke down after British refusal to
gnize Egyptian sovereignty over the
o-Egyptian Sudan. Egypt brought the
lem before the United Nations Se-
y Council on August 5, 1947, but the
ncil advised resumption of direct ne-
tions.

In Oct. 1951, Egypt abrogated the 1936 treaty and the 1899 agreement on the Sudan. Rioting and attacks on British troops in the Suez Canal zone followed, reaching a climax in Jan. 1952.

The army, led by Gen. Mohammed Naguib, seized power on July 23, 1952. On July 26, King Farouk abdicated in favor of his infant son. Naguib took over the premiership on Sept. 7, 1952, and promised far-reaching reforms. The monarchy was abolished and a republic proclaimed on June 18, 1953, with Naguib holding the posts of both provisional President and Premier. He relinquished the latter post on April 18, 1954, to Gamal Abdel Nasser, leader of the ruling military junta. Naguib was deposed by the Cabinet and junta on Nov. 14, 1954.

GOVERNMENT AND DEFENSE. A new Constitution is to be drafted during a 3-year transitional period beginning in 1953, after which a popular referendum will be held to choose between a presidential and a parliamentary form of republican government. Under the former Constitution the bicameral Parliament had a Senate of 177 members, two-fifths of whom were appointed by the King and the rest popularly elected for 10 years (half renewable every five years); and a Chamber of Deputies of 319 members popularly elected by universal male suffrage for five years unless sooner dissolved by the King.

Military service for all Egyptians is compulsory. The Egyptian army, strengthened and modernized during World War II, has about 160,000 men, including police units under military control. The air force has about 150 combat planes, and the navy 9 frigates, 2 fleet minesweepers and other smaller craft.

A treaty between Egypt and Britain signed Oct. 19, 1954, required the evacuation of British troops from the Suez canal zone but provided for the maintenance by civilians of defense installations there and gave Britain the right to reoccupy the zone under certain circumstances.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory between the ages of 6 and 12. In 1952–53 there were 7,369 primary schools with 1,464,446 pupils and 412 secondary schools with 180,759 pupils. The University Mosque of el-Azhar in Cairo (founded A.D. 972) is the chief theological seminary of the Moslem world. The University of Cairo (founded 1908), the University of Alexandria (founded 1943) and Ibrahim University (founded 1950) had a total of 45,217 students in 1952–53. Illiteracy is extremely high, being placed at approximately 88% in the latest estimate (1937).

The majority of the people are Sunni Moslems. The Christians are mainly Copts

with an admixture of Armenian, Syrian and Maronite sects. The population divides generally into fellahin (peasantry) and townspeople of the same blood, the Bedouin or nomad Arabs of the desert, and the Berbers, who occupy the Nile valley between Aswan and Dongola. The foreigners are chiefly Greeks (whose main center is Alexandria), French, British and Italians. The density of population in the small inhabited area in the Nile valley and delta (about 13,600 sq. mi.) is far greater than that of either the Netherlands or Belgium.

Agriculture is the chief industry, engaging more than half the population. Only about 3.5 per cent (8,600,000 acres) of the total area is arable, and only about 6,000,000 acres are actually under cultivation, almost entirely in the Nile valley and delta. More than half the cultivated area comprises farms of less than 20 acres. Irrigation is indispensable to agriculture; the Aswan reservoir above the first cataract of the Nile holds up to 5,500,000,000 cubic meters of water and that of Gebel Aulia, in the Anglo-Egyptian Sudan, 2,000,000,000 cubic meters. In the delta and in middle Egypt, where perennial or canal irrigation is possible, two or three crops a year can be grown. The chief cash crop is cotton, of which Egypt is one of the world's leading producers.

Production statistics for 1954 were as follows: wheat, 1,729,000 metric tons; maize, 1,735,000 tons; rice (paddy), 1,093,000 tons; sugar, 247,000 tons; cotton (lint) (1953–54) 318,000 tons.

Other crops include beans, garden crops, dates and grapes. The pastoral industry is relatively unimportant except to the Bedouins in the eastern desert.

Industry includes sugar refining, cotton ginning, cement manufacture, milling and pottery, soap and perfume making. The Sugar Company of Egypt holds a monopoly on the sugar refining industry.

Foreign trade statistics (in millions of Egyptian pounds) are as follows:

	1952	1953	1954*
Exports	145.1	137.3	138.3
Imports	223.1	177.0	160.2

*Provisional.

In 1954, Egypt's chief customers were India (13%), France (11%), Britain (10%) and western Germany (8%). Leading suppliers were Britain (13%), the U. S. (11%), western Germany (11%) and France (10%). Leading exports were raw cotton (82%), rice (2%) and onions (2%).

Imports included wheat, petroleum, fertilizers, iron and steel products, textiles and machinery and vehicles.

Navigable throughout its course in Egypt, the Nile is used largely as a means of cheap transport for heavy goods. The principal port is Alexandria. Railways link Cairo and Alexandria with Suez and nearly every town in the delta. According to *Lloyd's Register*, the merchant marine had 68 ships (100 tons and over) aggregating 113,795 gross tons on June 30, 1954. Cairo has a major airport.

Budget estimates for the fiscal year 1954–55 balanced revenue and expenditure at £E227,900,000. The public debt was £E208,000,000 on Feb. 28, 1953.

NATURAL FEATURES AND RESOURCES. CLIMATE. Egypt, at the northeast corner of Africa, is a very rough square, with the historic Nile flowing northward through its eastern third. On either side of the Nile valley are desert plateaus, spotted with oases. In the north, toward the Mediterranean, plateaus are low, while south of Cairo they rise to a maximum of 1,015 feet above sea level. At the head of the Red Sea, at the northeast corner of Egypt, is the triangular Sinai peninsula, between the Suez Canal and Palestine.

The Nile delta starts 100 miles south of the Mediterranean and fans out to a coastal front of 155 miles between Alexandria and Port Said. From Cairo north, the Nile branches into many streams, the principal of which are the Damietta and the Rosetta, joined by a network of canals.

The most important minerals are manganese ore (1954: 177,800 metric tons), phosphate (1954: 534,700 tons) and petroleum (1954: 13,300,000 barrels). Gold, iron ochres, nickel, sodium carbonate, sulfur, talc and tungsten also are mined.

Egypt has no forests. Total value of fishery products is about ££2,000,000 annually, representing a catch of about 50,000 metric tons.

Except for a narrow belt on the Mediterranean, Egypt lies in an almost rainless area, in which high daytime temperatures fall quickly at night. The mean temperature at Cairo varies between 53° in January and 84° in July; at Alexandria, between 57° in January and 81° in July. South of Cairo, pure desert conditions prevail; at Aswan the mean maximum temperature is 118°.

SUEZ CANAL. The Suez Canal, in Egyptian territory between the Arabian Desert and the Sinai peninsula, is an artificial waterway about 100 miles long between Port Said on the Mediterranean and Suez on the Red Sea. Construction work, directed by the French engineer Ferdinand de Lesseps, was begun April 25, 1859, and the canal was opened Nov. 17, 1869. The cost was 432,807,882 francs. The concession is held by an Egyptian joint stock company, *Compagnie Universelle du Canal Maritime de Suez*, in which the British government holds 353,504 out of a total of 800,000

res. The concession expires Nov. 17, 8, when it will revert to the Egyptian ernment.

n agreement signed Mar. 7, 1949, pro- ed for greater Egyptian participation in nagement and profits. On the board management of the canal are 1 Dutch, American, 5 Egyptian, 16 French and British directors.

SUEZ CANAL STATISTICS

	Ships	Net Tonnage	Receipts
1	11,694	80,356,338	£E26,160,000
2	12,168	86,137,037	£E26,729,900
3	12,731	92,905,439	£E28,901,200
4	13,215	102,493,851	£E30,338,000

n 1954, 32.1% of the tonnage was Brit- 14.0% Norwegian, 9.3% Liberian, 9.2% nch and 7.4% Panamanian. Over 60% the goods traffic of the canal consisted crude petroleum and petroleum pro- ts.

NGLO-EGYPTIAN SUDAN — Status: lo-Egyptian condominium.
rea: 967,500 square miles.
opulation (est. 1953): 8,820,000.
apital: Khartoum (pop. 1953: 82,700).
overnor General: Sir Knox Helm.
ime Minister: Ismail el-Azhari.
orein trade (1954): exports, £E40,395,- (42% to Britain); imports, £E48,489,- (32% from Britain). Chief exports: cot- (53%), gum arabic (9%), cottonseed.
gricultural products: cotton (seed) 4–55: 86,880 metric tons), cottonseed, et, sesame, wheat, peanuts.
inerals: gold, salt.
orest product: gum arabic (exports : 38,503 metric tons).

bout one-fourth the size of Europe, lo-Egyptian Sudan extends from north outh about 1,200 miles and west to about 1,000 miles. Before the revolt nst Egyptian rule by the Arabized es under Mohammed Ahmed (the di) in 1882–84, the region was known Egyptian Sudan. Since its reconquest the Anglo-Egyptian expeditions of –98, it has been known by its present e.

nder the self-government statute nulgated March 31, 1953, executive r is exercised by the Governor Gen- nominated by the British government confirmed by Egypt. He is advised by Prime Minister and a Cabinet of from o 15 Sudanese members. Legislative r is exercised by a bicameral Parlia- t composed of a Senate of 50 members, y elected and partly appointed, and a nber of Deputies of 78 elected mem- Certain defense and external relations ers are reserved to the Governor Gen- The promulgation of the statute was ded by an Anglo-Egyptian agreement Feb. 12, 1953, which recognized the of the Sudanese people freely to de- ine their political status at the end of a 3-year transitional period following election of a new Parliament. The election, held in Nov.-Dec. 1953, resulted in a victory for the pro-Egyptian National Unionist party; and its leader, Ismail el-Azhari, was named Prime Minister on Jan. 6, 1954.

The northern part of the country is peopled by Arabic-speaking Moslems, while in the backward south negroid pagan tribes predominate. Long-staple cotton, the chief export crop, is grown under irrigation in the Kassala and Tokar areas of the north and in narrow strips along the main Nile. Durra, peanuts, corn and oilseeds are grown elsewhere. Livestock raising is the occupation of most of the population. Most of the world's gum arabic comes from the semi-arid Kordofan area of the western Sudan; the southern forests are rich in fibers and tannins. Salt is produced at Port Sudan, and gold deposits are worked at Gebeit, near the Red Sea.

There are two trunk railways, one connecting Sudan with Egypt and the other affording access to the chief port, Port Sudan, on the Red Sea.

The northern region is a continuation of the Libyan Desert. The southern region is fertile, abundantly watered and, in places, heavily forested. It is traversed from north to south by the Nile, all of whose great tributaries are partly or entirely within its borders. The highest elevation is a mountain range parallel to the Red Sea, with heights of 4,000 to over 7,000 feet.

The whole country lies within the tropics and has an exceedingly hot climate—greatest in the central area and least in the desert zone, where the temperature range is large. At Khartoum the mean annual temperature is 80° and rainfall 5 inches.

Estonia

Area: 18,357 square miles.
Population (est. 1940): 1,126,415 (Estonians, 88%; Russians, 9%; Germans [Balts], 1%; others, 2%); (est. 1950): 1,200,000.
Density per square mile: 61.4.
Principal cities (est. 1938): Tallinn, 146,400 (capital); Tartu, 60,100 (university town); Narva, 24,200 (seaport).
Language: Estonian (Finno-Ugrian).
Religions: Lutheran, 78%; Greek Orthodox, 19%; others, 3%.

Born out of World War I, this small Baltic state enjoyed two short decades of independence before it was absorbed again by its powerful neighbor, Russia. In the thirteenth century, the Estonians had been conquered by the Teutonic Knights of Germany, who reduced them to serfdom. In 1521, the Swedes took over, and th

power of the German (Balt) landowning class was curbed somewhat. But after 1721, when Russia succeeded Sweden as the ruling power, the Estonians were subjected to a double bondage—the Balts and the tsarist officials. The oppression lasted until the closing months of World War I, when Estonia finally achieved independence.

Shortly after the start of World War II, the nation was occupied by Russian troops and was incorporated as the 16th republic of the U.S.S.R. in 1940. Germany occupied the nation from 1941 to 1944, when it was retaken by the Russians. Most of the nations of the world, including the U. S. and Great Britain, have not recognized the Soviet incorporation of Estonia.

Ethiopia (Kingdom)

(Abyssinia)

Area: 350,000 square miles.*
Population (est. 1951): 15,000,000* (Abyssinian [Amhara], 20%; Galla, 50%; others, 30%).
Density per square mile: 42.9.*
Ruler: Emperor Haile Selassie I.
Prime Minister: Bitwoded Makonnen Endalkatchau.
Principal cities (est. 1951): Addis Ababa, 400,000 (capital); Harar, 45,000 (coffee); Dessie, 35,000 (grain center); Dire Dawa, 30,000 (railway workshops).
Monetary unit: Ethiopian paper dollar.
Languages: Amharic, Arabic.
Religions: Copt (Christian), Mohammedan.

* Excluding Eritrea.

HISTORY. The historic origins of the Ethiopian state are unknown, but the royal family traces its origin (about 1,000 B.C.) to the Queen of Sheba and to Menelek, King Solomon's first son. Christianity was introduced about A.D. 330, and after the Arab conquest of northern Africa in the 7th century, Ethiopia was more or less cut off from the outside world for a thousand years. When Theodore III proclaimed himself Emperor in 1853, the country was a conglomeration of autonomous provinces under hereditary chiefs who were usually at war with one another. Menelek II, who ascended the throne in 1889, brought Ethiopia under single rule, and his forces finished off a five-year Italian attempt at invasion with a great massacre at Aduwa on March 1, 1896. Thereafter, Ethiopia moved in the orbit of England and France.

The defeat at Aduwa was not forgotten by Italy, which, after creating fake border incidents, invaded Ethiopia on Oct. 3, 1935, despite the threat of League of Nations sanctions. Addis Ababa fell on May 5, 1936, and Ethiopia was amalgamated with Italian Somaliland and Eritrea into Italian East Africa.

World War II brought early liberation. Ethiopia, in fact, was the first of the Axis occupied nations to be retaken by the Allies. British and Ethiopian troops recon quered the country in 1941, with the fina Italian surrender occuring on Nov. 2. During a transition period thereafter, th nation was under dual Anglo-Ethiopia control. Under an agreement signed o Jan. 31, 1942, British troops quit the coun try except for stipulated border areas. Th latter were evacuated in Aug. 1948.

After the war, the country launched modernization program in agriculture, in dustry and education. Irredentist claims the ex-Italian colonies and former Eth opian provinces, Eritrea and Somaliland began to be voiced in 1946. In Decembe 1950, the U. N. General Assembly voted federate Eritrea with Ethiopia under th sovereignty of the Ethiopian Crown. Th federation of the two countries becam effective on Sept. 15, 1952.

GOVERNMENT AND DEFENSE. Emper Haile Selassie I was born July 17, 189 crowned King on Oct. 7, 1928, and Emper on Nov. 2, 1930. His eldest son, the Crow Prince and heir apparent, is Asfa Wassa born on July 27, 1916. The Emperor direct controls the government, though the now is a Council of Ministers, a Sena and a Chamber of Deputies. All membe are appointed by the monarch, howev

In wartime, military service is compu sory. The small Ethiopian standing arm is equipped and trained by a British mi tary mission. A small Ethiopian force w dispatched to Korea in 1951.

SOCIAL AND ECONOMIC CONDITION The education system is extremely bac ward. Foreign missions or the governme maintain schools in the principal tow and several secondary schools have be set up. There were 399 primary scho with 51,579 pupils in 1951–52 and 11 sec dary schools with 2,170. Illiteracy is es mated at 70%. The Coptic Church (Chr tian), with its numerous priests, exerci powerful influence and owns much Eth pian land. It became independent of Coptic Archbishop of Alexandria in 19 Moslems, numerous in frontier regio have their religious center at Harar.

Ethiopia is generally fertile, predo nantly agricultural and pastoral, w many regions yielding two crops a y The chief crops are maize, wheat, bar rye, cotton, sugar cane, millet, hemp, ve tables, coffee and teff (the common br grain). The country's inadequate trans system, however, makes crop grow largely a local industry.

The country grazes several million tle, and many goats and sheep. Horses mules are bred extensively as pack ani and mounts. There is little manufactu except for small native industry, altho

e Italians built some industrial plants ring their five-year occupation.

Recent trade data (for years beginning c. 11, in millions of Ethiopian dollars):

	1951–52	1952–53	1953–54
ports*	106.5	169.4	160.3
ports	115.2	137.9	160.1

Excluding specie.

Chief exports in 1953–54 were coffee %), hides and skins (10%) and oilseeds %). Leading customers were the U. S. %), Aden (27%) and Italy (13%); ding suppliers, Italy (15%), India %) and the U. S. (14%). Major imports e cotton piece goods, machinery, sugar l salt.

The 486-mile track from Addis Ababa to bouti in French Somaliland is Ethi-a's only rail outlet and its principal de route. Motorable roads, non-existent ill about 1925, now total 5,000 miles.

The 1953–54 budget estimated revenue Eth.$121,340,000 and expenditure at .$121,295,600.

TURAL FEATURES AND RESOURCES; MATE. Over its main plateau-land, iopia has several high mountains. st of the many rivers are rapid, navigable, and flow into the Nile. The e Nile, or Abbai, rises in the northwest flows in a great semicircle east, south northwest before entering Sudan. Its ef reservoir, Lake Tana, lies in the thwestern part of the plateau.

old, produced from placer mines worked natives in the south and west, is Ethi-'s main mineral. Platinum also is ed in fair commercial quantities. Other erals are rock salt, cinnabar, copper, , mercury, mica, potash and sulfur. deposits are believed to exist, and all ling rights have been sold to the Sin-Refining Company of the U. S.

thiopia, lying wholly within the tropics, pes a torrid climate because of its ation, although the lowlands are hot. mean annual range of temperature is veen 60° and 80°, although Alpine con-ons prevail in the higher mountains. nfall at Addis Ababa is about 50 inches ually.

RITREA—Status: Federated with Ethi-

ea: 47,875 sq. mi.
pulation (est. 1950): 1,100,300.
pital: Asmara (population: 117,000).
vereign: Haile Selassie I.
ief Executive: Ato Tedla Bairu.
ricultural products: coffee, barley, to-o, sesame, hides, skins.
nerals: gold, salt, potassium salts.
a product: pearls.

e first Italian inroad into Eritrea s in 1870 when the port of Assab and cent territory were bought from a na-sultan; with British approval, Italian troops occupied Massaua in 1885. By a decree of Jan. 1, 1890, Italian possessions along the Red Sea were united into the colony of Eritrea. In 1936 Eritrea became a part of Italian East Africa. British and Indian troops captured Asmara on Apr. 1, 1941, and Massaua a week later; the area, reduced to its pre-1936 borders, then came under British military administration. The U. N. General Assembly on Dec. 2, 1950, adopted a plan for federation of an autonomous Eritrea with Ethiopia under the sovereignty of the Ethiopian Crown, federation becoming effective Sept. 15, 1952.

As an autonomous, self-governing area, Eritrea has its own elected assembly which selects the chief executive. It is also represented in the Ethiopian Parliament. Matters reserved to the Ethiopian government include defense, foreign affairs, foreign trade, finance and communications.

The principal native elements are the Ethiopians and Tigrés, who have close ethnic, linguistic and religious ties with peoples in neighboring Ethiopia. Irrigation is essential in the coastal plains, and agriculture is practiced largely on the interior plateau (average elevation: 6,500 ft.) where the climate is suitable for European settlement.

Along the coast, the climate is excessively hot and humid, especially in June, September and October; mean annual temperature at Massaua is 86°; the thermometer often rises to 120° in summer, and rainfall is less than 8 inches a year.

Finland (Republic)

(Suomen Tasavalta)

Area: 130,160 square miles.
Population (est. Dec. 31, 1953): 4,168,000 (Finnish, 91%; Swedish, 9%).
Density per square mile: 32.0.
President: Juho K. Paasikivi.
Premier: Urho Kekkonen.
Principal cities (est. Jan. 1, 1954): Helsinki, 396,343 (capital); Tampere, 107,577 (textiles, paper); Turku (Åbo), 107,519 (seaport, shipbuilding); Lahti, 46,822 (glass, lumber); Pori, 45,875 (timber).
Monetary unit: Markka (FM).
Languages: Finnish, Swedish.
Religions (1949): Evangelical Lutheran, 97%, Greek Orthodox, 2%; others, 1%.

HISTORY. The Finns, a people of possibly Mongolian origin, first settled their Montana-sized area about A.D. 100. King Eric IX of Sweden conquered them about 1155 and introduced Christianity. Under Swedish rule, which lasted for 650 years, the Finns retained considerable autonomy and were given their own parliament in the 17th century.

Political pressure growing out of the Napoleonic Wars forced Sweden in 1809 to

cede Finland to Russia, which gave the Finns a Constitution and set them up as a grand duchy. Out of the chaos and complexities of World War I, the Russian revolution of 1917 and a Finnish civil war in 1918 between "Reds" and "Whites" led by Baron Carl G. von Mannerheim, Finland emerged as a republic in 1919. A year later Russia ceded to Finland the Petsamo area with its ice-free Arctic port.

For the next twenty years Finland was generally orderly and prosperous except for vigorous suppression of Communists and a bloodless rightist uprising in 1932. In Nov. 1939, however, Russia attacked Finland to enforce territorial demands. The sturdy Finns stood off large-scale Red Army assaults for 105 days, but finally lost and ceded to Russia 10 per cent of the nation's area, including the Karelian isthmus. Under German pressure and somewhat in a spirit of revenge, the Finns joined the Nazis against Russia in 1941—and lost again.

Baron Mannerheim (who had led Finnish forces in both wars with the U.S.S.R.) became President in 1944, at a time when German defeat seemed inevitable. Finland severed relations with Germany on Sept. 2, signed an armistice and concluded a provisional peace treaty with Britain and Russia, Sept. 19. The U. S. had not declared war on Finland.

Pro-Russian Juho K. Paasikivi became Premier on Nov. 11, 1944, and when Mannerheim resigned because of illness on March 4, 1946, Paasikivi was elected by the Diet to fill the unexpired presidential term. The premiership went to Mauno Pekkala, leader of the new Socialist Unity party, advocating co-operation with the Communists.

The Communists and their allies lost ground in the July 1948 parliamentary election; and on July 29, Karl August Fagerholm formed a Social Democrat government in which the leftist bloc was not represented. Paasikivi was re-elected for a full 6-year term in Feb. 1950, and on Mar. 17, Fagerholm was succeeded as Premier by Urho Kekkonen at the head of a centrist minority Cabinet. The Communists retrieved part of their losses in the July 1951 parliamentary elections. Kekkonen was succeeded on Nov. 17, 1953, by Sakari S. Tuomioja. After the Mar. 1954 elections, Swedish party leader Ralf Toerngren formed a coalition Cabinet on May 5, 1954, but Kekkonen took over again on Oct. 20, 1954.

GOVERNMENT. Under the 1919 Constitution, the 200 Diet members are popularly elected by a proportional-representation system for three-year terms. The President, normally chosen for six years by an Electoral College of 300 members nominated by the people, acts through his Cabinet headed by the Prime Minister. Suffrage is universal. Because of the many political parties, government usually is carried on by a coalition, with frequent Cabinet changes.

Party standing in the Diet after the elections of March 1954 was as follows (1951 standings are shown in parentheses): Social Democrats, 54 (53); Agrarian, 53 (51); Communists, 43 (45); Conservatives, 24 (26); Swedish People's party, 13 (15); National, 13 (10).

The Swedish-populated Åland islands have an autonomous status under a statute passed in Oct. 1951.

PEACE TREATY OF 1947. The final peace treaty became effective Sept. 15, 1947; it confirmed the *de facto* cession to the U.S.S.R. of the Petsamo area, Viipuri and the Karelian region and also of the Porkkala-Udd area west of Helsinki for use as a Soviet naval base. Finland was to pay reparations of $300,000,000 in kind (reduced to $225,000,000 by the U.S.S.R. in 1948) over a period of eight years from Sept. 19, 1944. Reparations payments were completed in Sept. 1952.

The treaty limited Finnish defense forces to the following strengths: army, 34,400 personnel; navy, 4,500 personnel and tonnage of 10,000; and air force, 3,000 personnel and 60 aircraft. The possession of bombers, submarines, atomic weapons and motor torpedo boats is prohibited.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is very low (less than 1% beyond the age of 15). Education is compulsory from 7 to 15. In 1952 there were 6,354 elementary schools with 517,401 students and 345 secondary schools with 99,899 pupils. There are three regular universities, of which Helsinki has the largest enrollment (8,254 in 1952).

Only about 3 per cent of the land is under cultivation, and about 5 per cent is grassland. The chief crops (with estimated 1954 production in metric tons) are oats, 773,717; barley, 262,183; rye, 132,083; potatoes, 1,089,569. Grazing lands are extensive. In 1954 there were 1,885,096 cattle, 908,093 sheep, 545,720 hogs and 151,000 reindeer.

The leading Finnish manufactures are wood and paper (about one-third the total value), food, luxury items, machinery and textiles. Following the cession of the Karelian isthmus and the city of Viipuri to the U.S.S.R., Finland lost valuable manufacturing areas. Helsinki is the principal industrial center.

Trade statistics are as follows (billions of markkas):

	1952	1953	1
Exports	164.96	131.55	15
Imports	182.08	121.86	15

nief exports in 1954 were wood and d products (40%), paper and products %) and wood pulp (19%). Leading oliers were Britain (19%), the U.S.S.R. %), western Germany (7%) and France). Chief customers were Britain (22%), U.S.S.R. (21%), western Germany) and the U. S. (6%).

cording to *Lloyd's Register*, the mer- nt marine on June 30, 1954, had 348 s (100 tons and over) aggregating 664,- gross tons. The numerous lakes, many ed by canals, are busy transport routes. ut 40,000 vessels and 18,000 timber rafts the canals annually. There were ap- imately 39,000 miles of road in 1953. way mileage in 1954 totaled 3,136, ost entirely nationalized.

cent public finance data are as follows billions of markkas):

	1953	1954	1955*
nue	223.8	215.6	224.0
nditure	221.2	213.7	230.3

udget estimate, as supplemented in May 1955.

ıe total public debt was estimated at 00,000,000 FM on Dec. 31, 1954.

URAL FEATURES AND RESOURCES; MATE. Finland stretches 700 miles from Gulf of Finland on the south to Soviet mo, north of the Arctic Circle. Off the nwest coast are the Åland Islands (ap- imately 300), controlling the entrance ıe Gulf of Bothnia. Finland has more 60,000 lakes. Of the few rivers, only Oulu (Uleå) is navigable to any im- nt extent.

nland has no coal or oil, and many of re deposits are remote from transpor- n. Finland's sulfide ore (production in about 1,004,000 metric tons) is 4 per copper, 26 per cent sulfur and 27 cent iron, with some zinc, cobalt, gold silver. Limestone, soapstone and red te deposits are extensive, and uranium sits are believed to exist. Wood and are the only natural fuels.

re than a third of Finland is covered high quality timber, the nation's st natural resource. Timber produc- in 1954 totaled about 1,028,000 stand- cellulose, 1,573,200 metric tons; me- ical pulp, 190,300 tons; paper, 847,300 cardboard, 255,100 tons.

ns have fished for centuries, not com- ially, but for domestic consumption. 1952 catch was about 58,000 metric

nland's long severe winters are mod- d somewhat along the coast by pre- g southwest winds, but the summer only about two and a half months e year. Southerly Finnish ports are und part of the year. Rainfall is light, the driest months from May to Sep- er.

France (Republic)

(République Française)

Area: 212,741 square miles.
Population (census May 1954): 42,774,-445* (French, 96.6%; others, 3.4%).
Density per square mile: 201.1.
President: René Coty.
Premier: Edgar Faure.
Principal cities (census 1954): Paris, 2,850,189 (capital); Marseilles, 661,492 (chief port); Lyons, 471,270 (silk, metal manufacture); Toulouse, 268,863 (tobacco; commercial center); Bordeaux, 257,946 (wine; seaport); Nice, 244,360 (resort center); Nantes, 222,790 (manufacturing).
Monetary unit: Franc.
Religion (est.): Roman Catholic, 97.5%; Protestant and others, 2.5%.

* Excludes servicemen outside France and officials and their families in Austria and Germany.

HISTORY. France was ancient Gaul when Caesar conquered a part of it in 57–52 B.C.; for several centuries thereafter it was bound to the Roman Empire. In the 5th century A.D., it was overrun by the Franks and other barbarian tribes. Between 768 and 814, Charlemagne created a Frankish empire covering most of Western Europe, but by the time Hugh Capet came to the throne in 987, his kingdom comprised only the region around Paris. For more than 300 years the Capets struggled to unify the many feudal fiefs.

Philip VI, cousin of the last Capet and first of the House of Valois, took the throne in 1328. Soon thereafter began the Hundred Years' War (1338–1453), the struggle over England's bid to seize the French Crown. The English won at Crécy in 1346 and at Agincourt in 1415, but were defeated at Orléans in 1429 by the French forces led by Joan of Arc. Cruel persecution of French Protestants, the Huguenots, was followed by civil war and then the Edict of Nantes in 1598, by which the Huguenots received complete religious freedom from Henry IV, first of the Bourbons.

Splendor, wealth and the establishment of a colonial empire marked the long reign of Louis XIV from 1643 to 1715. Extravagance, however, forced Louis XVI to struggle with the problem of taxation at a time when the forces of revolution were coming to a head among France's lower and intellectual classes. The French Revolution, of world significance for its impact on absolute rule, broke out in 1789. Louis XVI was deposed in 1792 and executed the next year. Then came the Reign of Terror as the revolution swung to excess, the Directory from 1795 to 1799, and the Consulate from 1799 to 1804, after which Napoleon was proclaimed Emperor. Meanwhile, French armies were engaged on all sides, spreading French hegemony over most of western and central Europe. The final downfall came at Waterloo on June 18, 1815.

The restored Bourbon, Louis XVIII, reigned until 1824 and was succeeded by his reactionary brother, Charles X, who was overthrown in the revolution of 1830. His successor, Louis Philippe, was unseated in 1848, and succeeded by Napoleon's nephew, Louis. Inaugurated President of the Second Republic in 1848, Louis Napoleon became Emperor as Napoleon III in 1852 but abdicated after France's defeat in the Franco-Prussian War of 1870–71. The resultant conflict between republicans and monarchists was resolved by the adoption of a republican Constitution in 1875, which established the Third Republic to replace the provisional republic set up in 1871.

Victorious with the Allies in World War I under Premier Georges Clemenceau, France emerged as the dominant power on the continent. From 1919 on, its aim was to keep Germany weak through a system of military alliances and by maintaining a strong French army.

The effort was a dismal failure. At home France was weakened by economic and political instability, with many short-lived Cabinets. Germany became a dictatorship, with the full national energy bent toward war. The Third French Republic, permitting political freedom, bickered and argued away its years. The leftist "Popular Front" coalition Cabinets of Léon Blum (1936–47) and Camille Chautemps (1937–38) were succeeded by the Radical and Radical-Socialist Cabinet under Édouard Daladier, one of the men of Munich.

Paul Reynaud took Daladier's place on March 21, 1940, less than seven months after the start of World War II. In May 1940, Hitler's armies finally poured into France; and on June 16, the reins of government fell to Marshal Henri Philippe Pétain, who opposed continuation of the war. An armistice with Germany was signed June 22, dividing France into occupied and unoccupied zones. The Third Republic was voted out of existence on July 10 by the National Assembly at Vichy, and Unoccupied (Vichy) France became totalitarian, with Pétain as Chief of State.

Meanwhile, in London, General Charles de Gaulle had formed on June 18, 1940, a provisional French National Committee, which received British recognition and represented the interests of free Frenchmen. De Gaulle's government-in-exile was moved to Algiers in June 1943 as the French Committee for National Liberation.

After the liberation of Paris, De Gaulle formed a provisional government in the capital on Sept. 10, 1944. It remained in power as a theoretically nonpolitical regime until the elections of Oct. 21, 1945, when a National Assembly was selected to draw up a new Constitution and serve as an interim legislative body. De Gaulle was named provisional President on Nov. 1 but resigned soon after and was succeeded by Félix Gouin, a Socialist, on January 2 1946.

A new Constitution was approved by slim margin Oct. 13, and the Fourth Re public formally took shape early in 194 with the election of Socialist Vincen Auriol as President, Jan. 16, and the con firmation of Socialist Paul Ramadier a Premier, Jan. 22.

In the ensuing years a series of short lived Cabinets held office. Radical Social René Mayer, who took over Jan. 8, 1953, re signed on May 21, and after the longes Cabinet crisis in French history, Independ ent Joseph Laniel was confirmed a Premier on June 26, 1953. René Coty wa elected President of the republic on De 17, 1953, to succeed Vincent Auriol. Lani resigned on June 12, 1954; and on June 1 Radical Pierre Mendès-France was con firmed as Premier. He in turn resigned Feb. 5, 1955, and Radical Edgar Faure be came Premier on Feb. 23.

GOVERNMENT AND DEFENSE. Under th Constitution of 1946, France is a secula democratic and social republic. The dom nant power in the new republic is th National Assembly, whose members (6 in 1955) are elected by universal dire suffrage. There is also a Council of t Republic of 320 members elected by a com plicated indirect procedure requiring different elections. This house has on advisory and delaying powers and is de nitely subordinate to the Assembly. T two houses together elect the Preside of the republic for a 7-year term, b his choice of a Premier and the latte choice of Cabinet ministers require Asse bly ratification. All ministers are coll tively responsible to the Assembly for t general policy of the Cabinet and are i dividually responsible for their perso actions.

The National Assembly elections of Ju 17, 1951, divided the 627 seats as follo De Gaullists 118, Socialists 104, Comm nists 103, moderate right-wing parties Radical Socialists and affiliates 94, Popu Republicans 85, overseas deputies 23 vacancies). The Communists polled 26. of the popular vote, De Gaullists 21. and Socialists 14.5%.

France's 24th postwar Cabinet, appro Feb. 23, 1955, had 5 Radicals, 4 Gaulli 1 dissident Gaullist, 4 Popular Rep licans, 2 independent Republicans, 1 De cratic Unionist, 1 Peasant and 1 in pendent Peasant. Communists have b excluded from the government since A 30, 1947.

GOVERNMENT OF OVERSEAS TER TORIES. The French Constitution of provided for establishment of the Fre Union, consisting of the French Repu

FRANCE AND THE FRENCH UNION

Country	Area, sq. mi.	Population, estimated
ance	212,741	42,774,445 (1954)
rica		
ench Equatorial Africa	969,111	4,492,000 (1952)
Chad	495,752	2,304,000 (")
Gabon	103,089	413,000 (")
Middle Congo	132,046	693,000 (")
Ubangi-Shari	238,224	1,082,000 (")
ameroun	170,230	3,120,000 (")
geria	851,078	9,367,000 (1953)
orocco	153,870	9,140,000 (1952)
unisia	60,209	3,630,000 (1953)
ench West Africa	1,805,287	17,435,000 (1952)
Dahomey	44,749	1,565,000 (")
French Guinea	108,455	2,261,000 (")
French Sudan	461,389	3,467,000 (")
Haute Volta	121,892	3,137,000 (")
Ivory Coast	129,807	2,170,000 (")
Mauritania	364,092	547,000 (")
Niger	493,822	2,181,000 (")
Sénégal	81,081	2,108,000 (")
ogo	21,235	1,031,000 (")
ench Somaliland	8,376	65,000 (1953)
Iadagascar and dependencies	228,589	4,464,000 (1952)
omoro archipelago	849	166,000 (1953)
éunion	970	274,370 (1954)
merica		
t. Pierre and Miquelon	93	4,354 (1945)
rench Guiana	34,740	27,863 (1954)
Guadeloupe	686	229,120 (")
Iartinique	427	239,130 (")
sia		
iêt-Nam*	64,451	12,000,000 (1948)
Cambodia	53,668	3,860,000 (1953)
aos	91,428	1,260,000 (")
ceania		
rench Pacific Settlements	1,545	63,000 (1951)
ew Caledonia and dependencies	7,654	65,000 (")
ew Hebrides	4,633	50,000 (1953)

* Southern Viêt-Nam only.

metropolitan France and the overseas departments, territories and trusteeships) and the associated territories and states. The overseas departments are Algeria (three departments), Martinique, Guadeloupe, French Guiana and Réunion.

The overseas departments and territories are represented in the National Assembly by 75 deputies and in the Council of the Republic by 65. In addition the Constitution provided for creation of a High Council, consisting of nominees of the French government and of the associated states, and an Assembly of the French Union, with power that is mainly advisory. The Assembly, which met for the first time on Dec. 10, 1947, consists of 240 delegates, 120 of whom are elected by the French Parliament, 75 by territorial assemblies overseas, and 45 by the associated states.

Article 61 of the Constitution provides that the position within the Union of the associated states—tentatively described as French Morocco, Tunisia and the Federation of Indo-China—is "settled for each of them by the act which defines their relations with France." Both Morocco and Tunisia declined to modify their protected status in favor of a closer bond with France. Viêt-Nam, Laos and Cambodia, in Indo-China, became associated states.

Defense. French armed forces in Jan. 1953 (including the gendarmerie) totaled about 836,000 men, largely recruited under a conscription system providing for 18 months of service. The army had 12 divisions totaling about 608,000 men, and the air force 28 squadrons with 103,000 men. In Dec. 1954 the navy had 3 light aircraft carriers, 1 escort carrier, 2 battleships,

5 cruisers, 18 destroyers, 51 frigates and escort vessels, 14 submarines and several hundred smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* State elementary schools in 1952–53 numbered 70,214 with 4,128,692 students. There were also 10,823 private schools with 946,277 students. Students attending higher elementary schools, state and private, totaled 288,960. Pupils attending state secondary schools totaled 494,804; private, 361,333.

Higher education is provided chiefly in the universities, of which there are 17, with total enrollment of 147,844 in 1953. The University of Paris is largest, with an enrollment of 61,166.

Religion. The predominant faith is Roman Catholicism, but Church and State were separated in 1905. Diplomatic relations with the Vatican were resumed in 1921, and lesser church property was returned to diocesan associations in 1924.

Population. The people are not homogeneous, varying from section to section. During the inter-bellum period, the population remained almost static, with an increase of only 72,133 from 1931 to 1936 and a decrease of 3.3 per cent from 1936 to 1946. The period between 1946 and 1954 showed an increase of 5.6 per cent. The French birth rate also fell sharply (1925: 19.6; 1936–38 annual average: 14.8), but the end of World War II saw an uptrend, and the rate was estimated at 18.7 in 1954.

Agriculture. The national economy of France is predominantly agricultural. Of the total area, approximately 40 per cent is ordinarily devoted to crops, 20 per cent to forests, 3 per cent to vines and two per cent to market and other gardening. The vast majority of holdings are small farms worked by the owners. France normally is almost self-sufficient in basic foodstuffs and leads the world in wine production.

Production of major crops, in metric tons, was estimated as follows in 1954: wheat, 10,519,000; rye, 484,000; barley, 2,522,000; oats, 3,565,000; maize, 871,000; sugar beets, 10,500,000.

Other important crops are potatoes, berries, fodder beets, fruits, hay, nuts and turnips. Silk culture once thrived in the lower Rhône valley, but production fell sharply between wars. Milk, butter and cheese are important as exports. Livestock in Oct. 1952 included 16,281,000 cattle, (1953) 7,826,000 sheep and 7,179,000 hogs. Wine production in 1954 was estimated at 1,550,900,000 U. S. gallons.

Industry. Principal industrial areas are Paris, Artois, Lower Seine and Lyon; the textile industry is concentrated in the north. Leading manufactures are iron, steel, chemicals, textiles, automobiles, machinery and beet sugar. Industrial production in 1954 was estimated at 139% of the 1948 level.

FRENCH INDUSTRIAL PRODUCTION

Monthly averages, 1953 and 1954, in metric tons

Product	1953	1954
Pig iron and ferroalloys	730,000	745,000
Crude steel	833,000	886,000
Cement	769,000	796,000
Cotton yarn	22,500	24,600
Wool yarn	10,000	10,700
Rayon yarn	3,900	4,450
Electricity	3,243*	3,564*
Manufactured gas	207†	216†
Automobiles	30,690‡	36,425‡

* Millions of kwh. † Millions of cu. m. ‡ Units.

Trade. Foreign trade statistics, in billions of francs, including the Saar:

	1952	1953	1954
Exports	1,339	1,324	1,466
Imports	1,515	1,380	1,475

Principal suppliers in 1954 were the French Union (27%), the U. S. (9%), western Germany (8%), Iraq (5%) and Belgium (5%). Leading customers were the French Union (36%), western Germany (8%), Belgium (7%), Switzerland (7%) and Britain (6%). Leading exports were metals and manufactures (35%), textiles (18%) and agricultural and food products (9%).

Communications. The French merchant marine had 1,267 ships (100 tons and over) aggregating 3,844,519 gross tons on June 30, 1954, according to *Lloyd's Register*—fifth largest in the world on that date.

There are about 5,500 miles of navigable waterways, including canals, with a traffic of 42,075,000 metric tons in 1953. There are approximately 550 inland navigation ports, of which Paris, Rouen and Strasbourg each normally handle more than one million tons annually (Paris, more than ten million tons). Railway mileage in 1953 totaled 25,800. Railroads were merged in 1938 into the *Société Nationale des Chemins de Fer Français*, of which the government acquired controlling interest. Highway mileage in 1952 was 410,000, including 50,000 miles of national highways. Telephones totaled 2,644,910 on Jan. 1, 1953. Air France, nationalized on Jan. 1, 1946, operates on a world-wide basis.

Finance. France's postwar financial position was extremely unstable. Recent data are as follows (in billions of francs):

	1953	1954	1955*
Revenue	3,020	3,278	3,080
Expenditure	3,837	4,051	3,550

* Revised budget estimate, July 1955.

On Dec. 31, 1954, the franc debt was 4,530,000,000,000 fr. and the foreign currency debt, 1,120,000,000,000 fr.

ATURAL FEATURES AND RESOURCES; LIMATE. With a maximum length f about 600 miles and a width of 550 iles, France is second in size to Russia mong Europe's nations. Its coastline is bout 1,950 miles. In the Alps near the talian and Swiss borders is France's high-st point—Mont Blanc, 15,781 feet. The orest-covered Vosges Mountains are in the ortheast and the Pyrenees are along the panish border. Except for extreme north-rn France, which is part of the Flanders lain, the country may be described as four iver basins and a plateau. Three of the treams flow west—the Seine into the Eng-ish Channel, the Loire into the Atlantic, nd the Garonne into the Bay of Biscay. The Rhône flows south into the Mediter-anean. For about a hundred miles, the Rhine is France's eastern border. West of he Rhône and northeast of the Garonne ies the Central Plateau, covering about 15 per cent of France's area, and rising to a naximum elevation of 6,188 feet. In the Mediterranean, 115 miles east-southeast of Nice, is Corsica, the island of Napoleon's birth, with an area of 3,367 square miles.

Minerals. French coalfields, most exten-sive in the northeast, ordinarily supply about 70 per cent of domestic needs. Lor-raine, Anjou and Normandy have valuable iron ore deposits. Provence has bauxite. Alsace has potash and oil. Limousin has kaolin, zinc, lead and tar.

Production in 1954 (excluding the Saar) included coal, 54,408,000 metric tons; iron ore, 43,825,000 tons; lead (smelter), 61,500 tons; petroleum, 3,500,000 barrels; potash (K_2O content), 996,839 tons.

Forests and Fisheries. France, with more than 26,000,000 wooded acres, produces well over $100,000,000 worth of forest products in a normal year, including resin, turpen-tine, timber and nuts. The annual fish catch (520,300 metric tons in 1953) is among the largest in Europe. Cod and sardines are usually the biggest items.

Climate. France's climate is temperate but varies from long cold winters and hot summers in the northeast, to the subtropi-cal temperature of the Mediterranean coast with very mild winters. With no high western elevations to block moisture-laden winds from the Atlantic, all France has adequate rainfall of 20 to 30 inches a year. The mean annual temperature at Paris is 50.5° (36.5° in January and 65.5° in July). The rainiest months are June and October, with February usually the driest.

Andorra

This 191-square mile autonomous and semi-independent state on the Franco-Spanish border has been under the joint suzerainty of the French State and the Spanish bishops of Urgel since 1278. It is a cluster of mountain valleys inhabited by about 5,200 hardy and traditionally in-dependent people whose principal pursuit is the tending of flocks. Catalán is the language spoken, and both French and Spanish currency are in use. Andorra is governed by a Council General of 24 mem-bers, elected for four years by the heads of families. A First Syndic, chosen by the Council, constitutes the supreme executive authority.

FRENCH UNION

AFRICA

Algeria (Part of Metropolitan France)

(L'Algérie)

Governor General: Roger Léonard.
Principal cities (census 1948): Algiers, 315,210 (capital); Oran, 256,661 (seaport); Constantine, 118,774 (trading center); Bône, 102,823 (seaport; phosphates).
Monetary unit: French franc.
Languages: Arabic, French.
Religions: Mohammedan (natives), Ro-man Catholic, Jewish.

HISTORY. Algeria, more than three times the size of Texas and situated on the northern bulge of Africa, was of great stra-tegic importance during World War II. After U. S. and British troops occupied it following the landings of Nov. 8, 1942, it became the headquarters of the provi-sional French government of General Charles de Gaulle until the summer of 1944. For many months during that period it was the headquarters of the Allied Ex-peditionary Force.

Algeria became a Roman colony after the fall of Carthage in 146 B.C. and was overrun by the Arabs in the 7th, 11th and 12th centuries. In the 13th century it be-came one of the three kingdoms founded on the ruins of the old Almohade Empire. Following a brief Spanish occupation, it went under Turkish suzerainty in 1518. For 300 years thereafter, Algiers was the headquarters of the notorious Barbary pi-rates who preyed on Mediterranean ship-ping. The French ended Turkish rule by taking Algiers in 1830, but it was not until 1847 that they were able to suppress a holy war instigated in 1839 by Abd-el-Kader.

French policy for a time vacillated be-tween complete assimilation of Algeria as part of France, and a decentralized admin-istration under a Governor General. In 1896 the idea of assimilation was abandoned for a number of years. After France fell in 1940, Algerian government officials were loyal to Vichy, but their control was ended by the Allied invasion of Africa in the fall of 1942.

GOVERNMENT. In effect, Algeria is part of France. Its three departments are represented in the National Assembly by 15 deputies, and it is one of the ten military districts of France, with both French and natives subject to military service. The Governor General is responsible to the Interior Ministry in the French Cabinet rather than the Ministry for France Overseas. A statute enacted in Aug. 1947 gave Algeria an elected Legislative Assembly, but leadership of the government still remains with the Governor General.

SOCIAL AND ECONOMIC CONDITIONS. Primary and secondary schools for Europeans are on French lines. Most natives do not go beyond the primary grades. The knowledge and use of French has spread widely among the natives, but the teaching of Arabic in all schools was made compulsory in 1946. There is a university at Algiers, with faculties of science, arts, law, medicine and pharmacy.

Approximately 86 per cent of the population is native, 12 per cent French and 2 per cent other European. The native population is Berber, with Arab admixture physically assimilated.

The area under cultivation is about 15,000,000 acres, more than 30 per cent of which is owned by European farmers, chiefly in the fertile coastlands. The principal crops are wheat, barley and oats. Algeria is a leading wine producer, with almost 7 per cent of the cultivated area devoted to vines. Production in 1954 was 475,200,000 U. S. gallons, one-third above normal. Olive trees are widespread; the average annual yield of oil is about 2,500,000 gallons. Tobacco, corn, vegetables, flax, silk, figs and dates are also produced. Much of the area is more adapted to grazing than to agriculture. In 1953 there were 6,014,000 sheep, 864,000 cattle, (1952) 3,000,000 goats and 150,000 camels.

European industries include those dependent on crops, such as distilling and oil and flour milling, as well as the making of leather, tobacco and matches. There are also small native industries, particularly the traditional carpet weaving.

Exports in 1954 were valued at 140,279,000,000 fr.; imports, at 217,724,000,000 fr. Chief exports were wine (41%), iron ore (8%) and citrus fruits (5%). Chief imports were machinery and apparatus (7%), petroleum and products (7%) and sugar (5%). France took 73% of the exports and supplied 80% of the imports.

Algeria has 3,396 miles of railway. A central line runs from the Moroccan to the Tunisian frontier with branches north to all the ports and south into the Southern Territories. There is an excellent network of roads of more than 30,000 miles, and motor transport is well developed, including regular passenger and freight lines across the Sahara. Only French ships may normally trade between France and Algeria.

NATURAL FEATURES AND RESOURCES; CLIMATE. Northern Algeria extends inland for 185 to more than 200 miles. South of it are the big, economically unimportant Southern Territories. Low plains cover small areas near the coast, but 68 per cent of Algeria is a plateau between 2,625 and 5,250 feet above sea level. The region between the Sahara and the Mediterranean reaches a high point of 7,641 feet.

Most of the streams are periodic with the rains. The Chélif is the principal river, over 435 miles long. On the Saharan slopes, the oases or the hot sands absorb the streams as soon as they leave the mountain ridges.

Algeria is a leading producer of phosphates (1954: 758,000 metric tons). Iron ore of good quality is found near the Tunisian frontier and on the Oran coast (1954: 2,922,900 tons). Zinc, lead and salt are also important minerals; and small amounts of oil and coal are produced.

Rainfall averages 20 to 40 inches on the coast, and decreases to virtually none in the Sahara. On the coast, temperatures average about 52° in winter, 77° in summer. Inland, the winter average is about 40° and summer about 81°, although the Sahara summer average is 95° to 105°.

CAMEROUN (FRENCH CAMEROONS)—
Status: U. N. trust territory.
Capital: Yaoundé (population 50,000).
High commissioner: Roland Pré.
Foreign trade (1954): exports, 15,247,000,000 fr. C.F.A.* (51% to France); imports, 16,266,000,000 fr. C.F.A.* (32% from France). Chief exports: cacao (63%), fresh bananas, coffee, palm kernels and oil.
Agricultural products: cacao (exports 1954: 50,032 metric tons), palm kernels and oil, bananas, millet, sweet potatoes.
Minerals: diamonds, gold, tin.
Forest product: timber.

* Colonies Françaises d'Afrique, equal to 2 metropolitan francs.

In 1884 the Cameroons became a German colony (Kamerun), and after the conclusion of World War I the region was divided as a League mandate between Britain and France, four-fifths of the area going to France. Placed under French trusteeship by the United Nations in 1946, the area has political and financial autonomy under a French High Commissioner, responsible to the French government. Cameroun joined the Free French movement in 1940. The chief port is Douala; the administrative center, Yaoundé.

The climate is tropical and unhealthful for Europeans; not even in the cool months does the temperature generally fall below 70°. Rainfall is heavy on the coast (155 inches a year at Douala) and is fairly evenly distributed through the year.

FRENCH EQUATORIAL AFRICA—Status: Group of overseas territories.
Governor General: Paul Chauvet.
Capital: Brazzaville (population 83,579).
Foreign trade (1954): exports, 12,795,000,000 fr. C.F.A. (67% to France); imports, 6,682,000,000 fr. C.F.A. (60% from France).
Chief exports: cotton (35%), timber (33%), coffee, diamonds, gold, cacao, palm kernels.
Agricultural products: cotton (1954 exports: 31,689 metric tons), coffee, cacao, palm kernels and oil.
Minerals: gold, diamonds, and lead.
Forest products: timber, rubber, copal gum, wax.

This area, an early slaving center, was first settled by France in 1839; French hegemony was subsequently extended by exploration and conquest of the native tribes. The territories declared for Free France following the armistice of June 1940, and Brazzaville became capital of De Gaulle's Free French movement.

The Governor General, responsible to the Minister for France Overseas in the French Cabinet, administers the area as an administrative unit with the aid of an Administrative Council; each of the four territorial regions (Gabon [Gabun], Middle Congo, Ubangi-Shari, Chad) has a Governor responsible to him. There were, in 1951, 23,403 Europeans; most of the Africans are Negroes. There are Arab and Fulani settlements in the Chad region, and several Moslem sultanates. Natural resources, both forest and mineral, are vast but relatively unexploited. Once economically dependent on forest products, the country developed after World War II as a producer of cotton, diamonds and gold. The area is capable of exporting large quantities of hard okoumé wood, either in logs or in veneer form.

The climate is tropical—hot and humid—and the average temperature is about 80° (78° at Brazzaville), varying only slightly throughout the year. Rainfall averages about 60 inches annually, with no marked wet or dry seasons.

FRENCH MOROCCO: see MOROCCO

FRENCH SOMALILAND—Status: Overseas territory.
Capital: Jibuti (population 27,723).
Governor: René Petitbon.
Foreign trade (1954): domestic exports, 178,000,000 Jibuti fr.*; ship stores, 2,475,000,000 Jibuti fr.; imports (excluding ship stores), 2,231,000,000 Jibuti fr. Chief exports: salt, hides.
Mineral: salt.

* 1 Jibuti franc = 1.64 metropolitan francs.

French Somaliland, at the southern entrance to the Red Sea, was acquired by France between 1883 and 1887 by treaties with the Somali sultans, although posts on the coast had been acquired in 1856. This small, largely arid and sparsely populated region is important chiefly because of the port of Jibuti, the main artery of Ethiopia's trade via the Jibuti-Addis Ababa railway. The area is administered by a Governor, responsible to the French government and assisted by an administrative council. It adhered to the Free French movement in Dec. 1942.

French West Africa
(Group of Overseas Territories)
(L'Afrique Occidentale Française)

Governor General: Bernard Cornut-Gentille.
Principal cities (est. 1951): Dakar, 330,000 (capital, chief port); (est. 1953) Abidjan, 160,000 (export center); (est. 1952) Bamako, 100,000 (Niger river port).
Monetary unit: Franc C.F.A. (Colonies Françaises d'Afrique, equal to 2 metropolitan francs).
Languages: French, native tongues.
Religions: Mohammedan, pagan.

HISTORY AND GOVERNMENT. The St. Louis Colony, founded in 1626 at the mouth of the Sénégal River, was probably the first permanent white settlement in French West Africa in which the French established themselves, largely for the purpose of pursuing the slave trade. After 1876 the coast settlements were extended steadily into the interior through a series of missionary and economic campaigns. In 1895 the colony of French West Africa was formed under one Governor General by the unification of its various components.

The Governor General of the area is appointed by the French government and is assisted by a Legislative Council and an elected Assembly. Governors responsible to him administer the eight constituent territories—Sénégal, French Guinea, Ivory Coast, Dahomey, Haute Volta (re-established in 1947), French Sudan, Mauritania and Niger. Each of these has considerable autonomy, with the central government supervising services common to all.

The area is represented in the French National Assembly, the Council of the Republic and the Assembly of the French Union.

SOCIAL AND ECONOMIC CONDITIONS. Attendance at elementary schools in 1953 was approximately 230,000 (8.6% of the child population). There were, in 1952, 6,435 secondary school students and 2,250 technical school students.

No racial unity exists in French West Africa, and there is great variation of physique, manner, custom and language. The population is native except for approximately 63,000 Europeans (1951). Non-Negroid tribes include the Saharans, Moors, Tuaregs and Fulbé. About half the population normally is Mohammedan, but a number of tribes are spirit worshippers.

Agriculture has expanded rapidly in recent years. Millet, rice and maize are the principal food crops, and vegetable oils are a leading commercial product. Peanuts, the chief export crop (1954: 800,000 metric tons) are cultivated in Sénégal, and palm kernels and oil are produced in Dahomey and the Ivory Coast. Other products are coffee, cotton, cacao and bananas. Stock raising is important in French Sudan and Mauritania, relatively dry districts in the northern part of the area. Manufacturing is undeveloped except for small native industries. Expansion is hindered by limited power facilities.

Imports in 1954 totaled 66,445,000,000 fr. C.F.A., including cotton textiles, machinery, vehicles and metal products. Sénégal and the Ivory Coast account for over half the exports, which totaled 58,264,000,000 fr. C.F.A. in 1954 and included coffee (30%), peanuts (19%), cacao (15%) and peanut oil (14%). France took 67% of the exports and supplied 68% of the imports.

The middle Niger and lower Sénégal Rivers are navigable, but French West Africa's railways (1950: 2,350 mi.) are more important as interior communications. Dakar, with the best harbor on the west African coast, is the principal port and also an important stop on international air routes between South America and Europe. There are several other good ports.

NATURAL FEATURES AND RESOURCES; CLIMATE. The area, comprising a sixth of Africa, is half as big as Europe; it is generally a plateau broken by two mountain ranges. The Futa Jallon, from 2,300 to 4,900 feet in elevation, parallels the coast for about 430 miles, and Mount Nimba, on the Liberian border, rises 5,250 feet. There are also mountainous regions in the Sahara districts to the north. The Niger, 2,600 miles long, is the principal river.

Important minerals include diamonds, gold, iron ore and bauxite; production of gold has dropped sharply in recent years but large-scale exploitation of iron ore and bauxite deposits is in progress. Iron ore production totaled 592,000 metric tons in 1954; bauxite, 442,150 tons. Timber and precious woods are important, especially in the Ivory Coast.

The central and northern parts of the colony have two seasons, rainy and dry. In the southernmost regions there are two rainy seasons, separated by a short dry season. Average annual rainfall at St. Louis is 16.7 inches; at Dakar, 20.2 inches. Temperatures on the west coast average about 70° in winter and 82° in summer, with daily variation of about 20°.

MADAGASCAR AND DEPENDENCIES—
Status: Overseas territory.
Capital: Tananarive (Antananarivo) (est. pop. 1950: 174,153).
Governor General: Jean Soucadaux.

Foreign trade (1954)*: exports, 16,174,000,000 fr, C.F.A. (69% to France); imports, 24,040,000,000 fr. C.F.A. (75% from France). Chief exports: coffee (47%), tobacco (7%), cloves (6%).

Agricultural products: coffee (exports 1954: 41,476 metric tons), tobacco (4,713 tons), cloves (5,656 tons), rice, sugar, vanilla, manioc, bananas, maize, coconuts.

Minerals: graphite (1954 exports: 12,739 metric tons), mica, phosphates, gold.

Forest products: gum, medicinal plants, rubber, tannins, dyewoods.

* Excluding Comoro islands.

Madagascar, lying off the southeast coast of Africa, is the fourth largest island in the world, with a length of 995 miles and an average width of 250 miles. It remained independent under native rulers until 1885, when it came under French protection. French troops conquered the island in 1895 and it became a French colony the following year. The last native ruler, Queen Ranavalona III, was exiled.

British troops landed on the island May 5, 1942, during World War II, and an armistice with Vichy French forces was signed November 5, 1942. The island is administered by a Governor General responsible to the Minister for France Overseas in Paris, assisted by a General Assembly. Native nationalist outbreaks occurred in 1947, and French troops maintained order with difficulty.

The chief occupations are cattle raising (1953: 6,064,000 cattle) and agriculture; there are several food-processing and textile plants. The chief port is Tamatave on the east coast; the capital, Tananarive, is located on the central plateau. In 1951 there were about 52,000 French and 21,500 other European and Asian residents. The natives, collectively known as Malagasy, are divided into several tribes. Outlying dependencies include the islands of Europa, Juan da Nova, Bassas da India, Glorieuses and various scattered subantarctic islands known as Iles Australes.

The Comoro Islands (849 sq. mi.), formerly a dependency, became an autonomous overseas territory effective Jan. 1, 1947, and are represented in the French parliament, although still partly under the authority of French officials in Madagascar. They are located in the Indian ocean at the north entrance of the Mozambique channel, about 300 mi. north of Madagascar. The Comoros consist of four main islands and several islets. The French Administrator is assisted by a Privy Council and an elected General Council. The population is largely Moslem. Exports include essential oils, sisal, vanilla, copra, cacao and cloves.

The climate of Madagascar is generally tropical, with a warm and wet season from November to April and a cool, dry season the rest of the year. Temperatures vary between 55.5° and 95° (at Tamatave, 80°

n February, 68° in July). Rainfall varies from about 100 inches annually in the east and northwest to 16 inches in the south.

RÉUNION (Bourbon)—Status: Département of Metropolitan France.
Capital: St. Denis (population 41,163).
Prefect: Pierre Philip.
Foreign trade (1954): exports, 6,291,000,000 fr. C.F.A. (79% to France); imports, 3,473,000,000 fr. C.F.A. (69% from France).
Chief exports: sugar (80%), essential oils.
Agricultural products: sugar (exports 1954: 169,210 metric tons), vanilla, coffee, maize.

Discovered by Portuguese navigators in the 16th century, the island, then uninhabited, was taken as a French possession in 1638. It is located about 450 miles east of Madagascar, in the Indian Ocean.

There is no indigenous population. About three-quarters of the inhabitants are of European origin; the remainder are Creoles, mulattoes, Negroes, Indians and other Asiatics. Tropical cyclones of hurricane variety are frequent during the change of seasons. Occasionally a *raz de marée* (tidal wave) does great damage. Temperature varies from about 62° to 78°. Sugar-cane cultivation and the production of rum are the principal occupations.

TOGO—Status: U. N. trust territory.
Capital: Lomé (population 30,063).
Commissioner: Jean Bérard.
Foreign trade (1954): exports, 4,274,000,000 fr. C.F.A. (62% to France): imports, 2,719,000,000 fr. C.F.A. (45% from France).
Chief exports: cacao (55%), coffee, palm kernels, copra, cotton.
Agricultural products: cacao (exports 1954: 12,633 metric tons), palm kernels and oil, cotton, copra, coffee.
Mineral: iron ore.
Forest products: dyewoods, oil palms.

Togo, a part of the former Slave Coast, lies between the British Gold Coast colony and French West Africa. Established as a German colony in 1884, the area was divided as a League mandate by France and Britain at the end of World War I, with France obtaining two-thirds of the total area. It was placed under U. N. trusteeship in Dec. 1946. Agriculture and grazing are the chief industries. In 1951, there were 1,500 Europeans. The coastline, only 32 miles long, is low, sandy and without harbors.

The coastland climate is hot, humid and unhealthful, with wet seasons lasting from March to June and from September to November. Rainfall is about 55 inches yearly in the south.

Tunisia (Protectorate)

Ruler (Bey): Sidi Mohammed al-Amin.
Resident General: Gen. Pierre Georges Boyer de la Tour du Moulin.
Prime Minister: Tahar ben Ammar.
Principal cities (census 1946): Tunis, 364,593 (capital); Sfax, 54,637 (phosphate port); Bizerte, 39,327 (seaport and naval base); Sousse, 36,566 (seaport).
Monetary unit: French franc.
Languages: Arabic, French, Italian.
Religion: Predominantly Mohammedan.

HISTORY. Tunisia was settled by the Phoenicians and Carthaginians in ancient times. Except for an interval of Vandal conquest in A.D. 439–533, it was part of the Roman Empire until the Arab conquest of 648–69. Then it was ruled by various Arab and Berber dynasties until the Turks took it in 1570–74. The founder of the present dynasty, Hussein ben'Ali, was proclaimed sovereign by the occupation troops in 1705 and later succeeded in making the office hereditary, although subject to nominal Turkish sovereignty.

Throughout much of its history, Tunisia was essentially a pirate state, preying on Mediterranean shipping. In modern times, Italy became predominant economically in the area, but after French troops occupied the area in 1881, the Bey signed a treaty acknowledging a French protectorate.

Following the Allied landings in North Africa in 1942, Tunisia became a battleground with the Axis forces pinched between the British 8th Army advancing from Libya and the U. S., British and French forces from Algeria. The Axis units surrendered in May 1943, and Tunisia was turned over to the De Gaulle government. On May 15, 1943, the reigning Bey, Sidi Mohammed al-Mounsaf, was removed and replaced by his cousin, the present ruler.

Fanned by Arab nationalist agitation elsewhere, the Tunisian nationalist party, *Destour*, although banned by the French, has intensified its activity in recent years. Its aim is the complete independence of Tunisia and its adherence to the Arab League.

GOVERNMENT. Although the Bey is theoretically sovereign, a French Resident General directs the government, assisted by a Cabinet headed by the Prime Minister with a majority of Tunisian ministers. Conventions granting internal autonomy were signed June 3, 1955.

SOCIAL AND ECONOMIC CONDITIONS. In 1952–53 Tunisia's 698 public and 220 private schools had 220,257 pupils, about a fourth of them French and Italian. The Great Mosque at Tunis is a Moslem University.

Tunisia's population (by the 1946 census, 87.4 per cent Arab) is concentrated in the cities and on the coast. There are about 100,000 nomads.

Agriculture is the chief industry. Over a quarter of the arable land is in wheat (1954: 653,000 metric tons). Other important crops are barley, oats, corn, sorghum, beans and peas. Wine production in 1954 was 17,500,000 gallons. Average annual olive oil production is about 60,000 metric

tons (1954: 52,000 tons). The Cape Bon region is largely devoted to citrus fruits, the southern oases to dates. In 1952 there were 3,420,000 sheep, 302,000 horses, asses and mules, 401,000 cattle, 3,420,000 goats and 234,000 camels.

Leading industries include flour milling, oil refining, lead smelting and distilling. Native industries include the spinning and weaving of wool, and the making of pottery and leather goods.

Tunisia, Algeria and France are under a single customs union for a number of products. Exports in 1954 were valued at 42,690,000,000 fr., of which 60% went to France. They included olive oil (18%), wheat (15%), phosphates (13%) and iron ore (8%). Imports were valued at 59,211,000,000 fr., of which 75% came from France. The leading items were machinery and apparatus (8%), petroleum and products (7%), sugar (7%), vehicles (5%) and cotton textiles (5%).

There were 5,500 miles of roads in 1952, 1,300 miles of railway in 1951. Tunis, Bizerte, Sousse and Sfax are principal ports.

NATURAL FEATURES AND RESOURCES; CLIMATE. Tunisia, at the northernmost bulge of Africa, thrusts out toward Sicily to mark the division between the eastern and western Mediterranean. It is mountainous in the north, covered by plains in the east, and projects southward to the Sahara area.

Tunisia's extremely rich deposits of phosphates are mined principally in the Gafsa and Kef regions. Production in 1954 was 1,846,000 metric tons. The iron ore is of good quality (1954: 951,800 tons). Other minerals are lead (1954: 41,700 tons), zinc, mercury, manganese, copper, salt and poor-grade lignite.

The climate is Mediterranean with mean temperature extremes at Tunis of 52.7° and 79.2°. Annual rainfall ranges from 24 inches in the north to less than five inches in the south.

WESTERN HEMISPHERE

FRENCH GUIANA (including ININI)—Status: Département of Metropolitan France.

Capital: Cayenne (population 12,934).

Prefect: Pierre Maloy.

Foreign trade (1954): exports, 175,000,000 fr. (68% to France); imports, 3,550,000,000 fr. (73% from France). Chief exports: rum (47%), rosewood essence, timber.

Agricultural products: bananas, cacao, corn, manioc, rice, sugar cane.

Mineral: gold (1954 exports: 1,280 troy oz.).

French Guiana, lying north of Brazil and east of Surinam (Dutch Guiana) on the northeast coast of South America, was first settled in 1626. Penal settlements, embracing the area around the mouth of the Maroni River and the Iles du Salut (including Devil's Island), were founded in 1852; they were replaced by refugee camps in the 1940's.

During World War II French Guiana at first adhered to the Vichy government, but the Free French took over in March 1943. The large and scantily populated territory of Inini in the hinterland is administered separately. Economic development is extremely backward; transportation is almost entirely by water, conditions are unsanitary and large quantities of foodstuffs must be imported.

January temperatures average 79°, September and October temperatures 82°. Rainfall is heavy.

GUADELOUPE—Status: Département of Metropolitan France.

Capital: Basse-Terre (population 11,430).

Prefect: Jacques Ravail.

Foreign trade (1954): exports, 11,219,000,000 fr. (87% to France); imports, 11,039,000,000 fr. (79% from France). Chief exports: sugar (48%), bananas.

Agricultural products (1953–54): sugar, (90,000 metric tons), bananas, coffee, cacao, manioc, vanilla.

Guadeloupe, lying in the West Indies about 300 miles southeast of Puerto Rico, was discovered by Columbus in 1493. French colonization began in 1635. It consists of two large islands, separated by a narrow arm of the sea, and several outlying smaller islands. Most of the population is Negro and mulatto. The largest city and chief port is Pointe-à-Pitre (population 25,869). About half the cultivated area is devoted to sugar cane. The manufacturing of rum and spirits is the principal industry. Mean annual temperature is 78°. Average annual rainfall is 86 inches on the coast and much higher in the interior.

MARTINIQUE—Status: Département of Metropolitan France.

Capital: Fort-de-France (population 58,763).

Prefect: Gaston Villéger.

Foreign trade (1954): exports, 8,289,000,000 fr. (91% to France); imports, 12,699,000,000 fr. (76% from France). Chief exports: sugar (44%), rum, bananas.

Agricultural products (1953–54): sugar (65,000 metric tons), bananas, pineapples, cacao, coffee.

Manufactures: rum, sugar.

Martinique, lying in the Lesser Antilles about 300 miles northeast of Venezuela, was probably discovered by Columbus in 1502 and was taken for France in 1635. Following the Franco-German armistice of 1940 it had a semi-autonomous status under the High Commissioner, Admiral Georges Robert, until 1943, when he relinquished his authority to the Free French. The area, administered by a Prefect assisted by an elected council, is represented in the French legislature. The

population is mainly Negro and mulatto. Most of the arable land is devoted to sugar cultivation. Fort-de-France, the capital and chief commercial center, has an excellent harbor. Mean annual temperature of the coast region is 80° (77° in January, 83° in June); annual rainfall is 87 inches.

ST. PIERRE AND MIQUELON—Status: Overseas territory.
Capital: St. Pierre (population 3,636).
Administrator: Pierre Sicaud.
Foreign trade (1954): exports, 169,000,000 fr. C.F.A. (41% to the U. S.); imports, 506,000,000 fr. C.F.A. (56% from Canada). Chief export: fish and products.

The sole remnant of the French colonial empire in North America, these islands were first occupied by the French in 1660. Their only importance arises from proximity to the Grand Banks (10 mi. south of Newfoundland) making them the center of the French Atlantic cod fisheries.

ASIA

French India

The one-time French possessions in India, dating back to 1674, are now part of the Republic of India. Chandernagor, in Bengal, was transferred to India on May 2, 1950, in accordance with a popular referendum. Heavy Indian political and economic pressure forced the transfer on Oct. 31, 1954, of the remainder—Pondichéry, Karikal and Yanaon on the Coromandel coast and Mahé on the Malabar coast.

Indo-China

HISTORY. Indo-China, at the southeast corner of Asia, first met the West in the 16th century, when Portuguese traders and missionaries arrived.

French influence dates from 1787, and in the 19th century France received preferential treatment for helping the Emperor of Annam recover his throne. During the last half of the century, France gradually extended influence over the whole of Indo-China.

Until the beginning of World War II, Indo-China was an administrative federation of one colony—Cochin-China; four protectorates—Annam, Tongking, Cambodia and Laos; and a special territory—Kwangchowan (returned to China in 1945). These had various degrees of native rule, but the real administrator of each unit was the French Chief Resident.

After France fell in 1940, Vichy authorized the entry of Japanese troops, and the country became one of the springboards for the Japanese campaign against Singapore. When, in March 1945, the Japanese seized control of the whole country, Annam and Cambodia declared their independence. After the Japanese surrender, British and Chinese troops occupied Indo-China in the face of a growing nationalist movement, and restored order for the French authorities, who assumed control officially on March 4, 1946.

The Republic of Viêt-Nam—comprising Tongking and the northern part of Annam—was then recognized on March 6, 1946, as a free state within the Indo-Chinese Federation and the French Union. The French refusal to accede to demands of Viêt-Nam leaders headed by Dr. Ho Chi Minh, a Communist, for the accession of Cochin-China to the new state and the continued landing of French troops led to the outbreak of hostilities with Ho Chi Minh's adherents (called Vietminh) in Dec. 1946.

Amid the hostilities, protracted negotiations ensued regarding the future legal status of Indo-China. France installed Bao Dai, former Emperor of Annam, as head of a new French-supported state of Viêt-Nam (to which Cochin-China acceded in 1949) and under agreements concluded with Viêt-Nam and subsequently with Laos and Cambodia, all of which were finally ratified in 1950, the three states were recognized with some reservations as independent associated states within the French Union.

Meanwhile, the Vietminh forces, organized as the Democratic Republic of Viêt-Nam and recognized by the U.S.S.R., Communist China and other states of the Soviet bloc, acquired a hold on most of Viêt-Nam outside the large urban centers and heavily settled delta areas which, with the aid of Communist Chinese logistical support, they held and even extended despite persistent pressure by French and associated troops. In early 1953 the Vietminh spread the conflict into Laos and in April 1954 into Cambodia. In the meantime, the three states sought and received from France concessions enlarging the independence that they had won in 1950.

Proposals for settlement of the conflict were taken up by the Big Four conference at Geneva in May 1954, with representatives of Communist China, Viêt-Nam, Laos, Cambodia and the Vietminh also participating. Armistice agreements were signed at Geneva on July 21, 1954. Viêt-Nam was cut about in half along the 17th parallel, the northern part going to Vietminh. Elections for a unified government of Viêt-Nam were to be held within 2 years.

National State of Viêt-Nam

Area: 64,451 square miles.
Population (est. 1948): 12,000,000.
Density per square mile: 186.2.
Chief of State: Bao Dai.
Premier: Ngo Dinh Diem.
Principal cities (est. 1948): Saigon, 698,-

000 (capital; industrial and shipping center); Cholon, 481,000 (chief port); Dalat, 250,000 (summer capital).
Languages: Annamese, French.
Religions: Buddhism, Christianity.

The national state of Viêt-Nam comprises the southern part of the former state of Viêt-Nam as it was partitioned along the 17th parallel in 1954 in accordance with the Geneva agreements. It includes all of the former state of Cochin-China and the southern part of Annam and is an associated state within the French Union. The Chief of State is advised by the Premier and his Cabinet. Considerable discord and unrest prevailed after the partition.

The economy is based on agriculture, and the Mékong delta is one of the leading rice-export areas. There are important rubber, tea and coffee plantations in the Moi plateau and on the northern edge of the delta. Other crops include maize, sugar, cotton and pepper.

Factories, centered in Saïgon and Cholon, are small and process goods for local consumption and agricultural and forest products for export. Most important are the rice and saw mills. Rubber and rice are the chief exports. Rivers and canals are an important means of transport. A railway runs up the coast from Saïgon, and there is a good network of highways.

The area consists essentially of the vast Mékong river delta and to the north, part of the Annamese cordillera and the adjoining coastal plain. The climate is monsoonal, with nearly all the very heavy rainfall between May and October.

Democratic Republic of Viêt-Nam

Area: 62,808 square miles.
Population (est. 1948): 10,663,000.
Density per square mile: 169.8.
President and Premier: Ho Chi-minh.
Principal cities (est. 1948): Hanoi, 237,500 (capital); Haiphong, 143,000 (chief port).
Languages: Annamese, Chinese, French.
Religions: Buddhism, Christianity.

The republic of Viêt-Nam comprises the northern part of the former state of Viêt-Nam as it was partitioned along the 17th parallel in 1954 in accordance with the Geneva agreements. It includes all of the former state of Tongking and the northern part of Annam, and is no longer a part of the French Union. The government is organized along typical Communist lines.

The economy is based on agriculture and mining. The chief crop is rice, grown chiefly in the Red River delta and supplying in most years the requirements of the population. Other crops are maize, arrowroot, sugar cane, tea, coffee, tobacco and sweet potatoes. Industry is not highly developed. There are important coal miles in the Quangyen basin near Haiphong. Tin, limestone and gold also are produced. A railway runs south from Hanoi along the coast.

The area consists principally of the Red River delta in the north and the northern coastal plain of Annam. The climate is similar to that of south Viêt-Nam, although the winters are cooler and the precipitation greater.

Cambodia (Kingdom)

Area: 53,668 square miles.
Population (est. 1953): 3,860,000.
Density per square mile: 71.9.
Ruler: King Norodom Suramarit.
Premier: Leng Ngeth.
Principal cities (est. 1948): Pnompenh, 110,600 (capital); Battambang, (1941) 23,567 (rice).
Languages: Cambodian, Annamese.
Religion: Buddhist.

Cambodia is bounded on the south and east by south Viêt-Nam, on the north by Laos and Thailand, on the West by Thailand and on the southwest by the Gulf of Siam. It is an associated state within the French Union. Under a Constitution promulgated May 6, 1947, the sovereign exercises executive power through the Cabinet headed by the Premier. Legislative power is vested in an elected Assembly.

Agriculture is the basis of the economy. The chief crop is rice, grown principally in the Battambang area. Other crops include tobacco, kapok, cotton, rubber, pepper and maize. Cattle breeding is of major importance. Native industries include silk and cotton weaving, rice milling and the salting of fish. Timber production is important. Deposits of iron ore, limestone and phosphate exist but are not being exploited. There are 875 mi. of navigable waterways; small steamers can reach Pnompenh on the Mékong river.

Cambodia consists chiefly of a large alluvial plain ringed in by mountains and on the east by the Mékong river. The plain is centered on Lake Tonle Sap, which is a natural storage basin of the Mékong.

Laos (Kingdom)

Area: 91,428 square miles.
Population (est. 1953): 1,260,000.
Density per square mile: 13.8.
Ruler: King Sisavang Vong.
Premier: Katay Sasorith.
Principal cities (est. 1948): Luangprabang, 15,000 (royal capital); Vientiane, 13700 (administrative capital).
Language: Laotian.
Religion: Buddhism.

Sparsely settled Laos, occupying the northwestern portion of Indo-China, is an associated state within the French Union. Under the Constitution promulgated May 15, 1947, the sovereign exercises executive

power through the Cabinet headed by the Premier. Legislative power is vested in an Assembly elected by indirect universal suffrage.

The chief food crop is rice; others are maize, vegetables, cotton, cardamons and tobacco. The leading exports are benzoin, coffee, opium and lac; cattle and teak are also exported. Laos is the least developed of the former Indo-Chinese states and has little modern industry. Tin is the only mineral of importance. The northern forests are rich in valuable timber, notably teak; the logs are floated down the Mékong. The latter, in spite of rapids, is the chief transportation route.

Northern Laos is a region of forested ranges and plateaus cut by narrow valleys and gorges; narrower southern Laos is a sparsely forested region of terraces. The summers (May–Oct.) are wet, with rainfall up to 80 in., succeeded by a dry season, first cool (Nov.–Feb.) and then hot (Feb.–May).

OCEANIA

FRENCH PACIFIC SETTLEMENTS—Status: Overseas territory.
Governor: Jean Toby.
Capital: Papeete, on Tahiti (population 1946: 12,428).
Foreign trade (1954): exports, 664,000,000 fr. C.F.P.*; imports, 709,000,000 fr. C.F.P. Chief exports: copra (41%), phosphate, vanilla.
Agricultural products: coconuts, sugar, vanilla, tobacco.
Mineral: phosphate (1954 exports: 228,995 metric tons).

* Colonies Françaises du Pacifique, equal to 5½ metropolitan francs.

The term French Pacific Settlements is applied to the scattered French possessions in the eastern Pacific—Mangareva (Gambier), Makatea, Marquesas Islands, Rapa, Tuburutu, Rimatara, Society Islands, Tuamotu Archipelago, Tubuai and Raivavae—which were organized into a single colony in 1903. The appointed Governor is assisted by an Administrative Council. The principal and most populous island—Tahiti, in the Society group (pop. 1946: 24,820)—was claimed as French in 1768. Plebiscites conducted in September, 1940, gave support to the Free French. The natives are mostly Polynesians.

NEW CALEDONIA AND DEPENDENCIES—Status: Overseas territory.
Capital: Nouméa (population 20,000).
Governor: René Hoffherr (also French Commissioner General in the Pacific).
Foreign trade (1954): exports, 1,576,000,000 fr. C.F.P.; imports, 1,435,000,000 fr. C.F.P. Chief exports: nickel (77%), chrome ore, coffee.
Agricultural products: coffee, copra, corn, cotton, manioc, rice, tobacco.
Minerals (1954): nickel (7,545 metric tons, matte), chromite (59,499 tons).
Sea product: mother-of-pearl.

New Caledonia (6,533 sq. mi.), lying about 1,070 miles northeast of Sydney, Australia, was discovered by Captain James Cook in 1774 and annexed by France in 1853. The government, in the hands of an appointed Governor and an elective Council, also administers the Isle of Pines, the Wallis Archipelago, the Loyalty Islands, the Chesterfield Islands, Walpole, the Huon Islands, Futuna and Alofi, with a total area of 1,121 square miles. The area—taken over in the summer of 1940 by the Free French after a bloodless revolution—is one of the richest of the Pacific islands in mineral resources, particularly nickel and chrome ore. The natives are Melanesians; about one-third of the population is white and one-fifth Indo-Chinese and Javanese. A French penal colony was established in the 19th century. Average temperature on New Caledonia varies between 65° and 72°.

NEW HEBRIDES—Status: Anglo-French condominium.
Capital: Vila (population 1,200).
Foreign trade (1954): exports, 295,579,000 fr. C.F.P.; imports, 205,604,000 fr. C.F.P. Chief exports: copra (78%), cacao.
Agricultural products: coconuts, cacao, coffee.
Sea products: trochus and burghaus shell.

The New Hebrides, under joint Anglo-French administration since 1914, lie northeast of New Caledonia. The islands, about 40 in number, joined the Free French movement after a plebiscite in July 1940. Most of the natives are Melanesians of mixed blood; there were 350 British and 1,300 French in 1951. The largest island is Espiritu Santo (875 sq. mi.). The French and British high commissioners in the Pacific are represented by resident commissioners.

GERMANY

HISTORY. In Caesar's time, the territory that is now Germany was inhabited by barbarous tribes that came originally perhaps from Central Asia. One of these Germanic tribes, the Franks, attained supremacy in western Europe under Charlemagne, who was crowned Holy Roman Emperor in A.D. 800. By the Treaty of Verdun (843), Charlemagne's lands east of the Rhine were ceded to the German Prince Louis. Additional territory acquired by the Treaty of Mersen (870) gave Germany approximately the area she maintained throughout the Middle Ages. For several centuries after Otto the Great was crowned King in 936, the German rulers were also usually heads of the Holy Roman Empire.

Relations between State and Church were changed by the Reformation, which began with Martin Luther's 95 theses, and came to a head in 1547, when Charles V

scattered the forces of the Protestant League at Mühlberg. Freedom of worship was obtained by the Peace of Augsburg (1555), but a Counter Reformation took place later, and a dispute over the succession to the Bohemian throne brought on the Thirty Years' War (1618–48) which devastated Germany and left the empire divided into hundreds of small principalities virtually independent of the Emperor. Meanwhile, Prussia was developing into a province of considerable strength. Frederick the Great (1740–86) reorganized the Prussian army and defeated Maria Theresa of Austria in a struggle over Silesia. The conflict with revolutionary France hastened the disintegration of the empire, and in 1806 Francis II of Austria laid down the Imperial German crown. After the defeat of Napoleon at Waterloo (1815), the struggle between Austria and Prussia for supremacy in Germany continued, reaching its climax in the defeat of Austria in the Seven Weeks' War (1866) and the formation of the Prussian-dominated North German Confederation (1867).

At the close of the victorious war with France (1870–71), William I, King of Prussia, was crowned Emperor of Germany (Jan. 18, 1871). Under the guidance of the Imperial Chancellor, Prince Bismarck, Germany took a new place in world affairs, at the same time expanding her foreign trade and home industry rapidly. The Triple Alliance was formed with Austria and Italy in 1882. However, upon the accession of William II (1888–1918), Bismarck was dismissed and Russia was alienated. International rivalry was intensified in the early years of the 20th century, culminating in World War I, in which Germany, supporting Austria-Hungary's demands on Serbia, suffered final defeat. By the terms of the Treaty of Versailles (1919) Germany lost about 27,000 square miles of territory, including all her colonies, plus Alsace-Lorraine, northern Schleswig, Eupen-Malmédy, Upper Silesia, and considerable areas in the east. William II had abdicated (Nov. 9, 1918), and a federal republic was organized under the Constitution adopted at Weimar in 1919. The Constitution was attacked by both the Right and Left; several Communist uprisings took place in the early 1920s, and in 1923 Adolf Hitler's abortive putsch was defeated. Germany's inability to fulfill the heavy reparations demands stipulated by the Treaty of Versailles led to French occupation of the Ruhr (1923–25). National bankruptcy was avoided by adoption of the Dawes Plan (1924) and later the Young Plan.

The chancellorship of Brüning, leader of the Catholic Center party (1930–32), saw increasing economic and financial distress and the practical cessation of reparations payments. Hitler's rising National Socialist party won a plurality in both the July and November Reichstag elections in 1932, but not until the failure of Franz von Papen and Kurt von Schleicher to form governments did President Hindenburg name Hitler Chancellor (Jan. 30, 1933). With the death of Hindenburg in 1934, Hitler became complete master of Germany, which he rapidly converted into a totalitarian state under the aegis of the Nazi party. All other political parties were banned, and the Jews were subjected to severe persecution. Through his foreign policy, Hitler repudiated the Treaty of Versailles and began full-scale rearmament. In 1935 he withdrew from the League of Nations, and in 1936 he reoccupied the Rhineland and signed the anti-Comintern pact with Japan, at the same time strengthening relations with Italy. Austria was annexed in March 1938. By the Munich agreement (Sept. 1938) he gained the Czech Sudetenland, and in violation of this agreement he completed the dismemberment of Czechoslovakia in March 1939. But his invasion of Poland on Sept. 1, 1939, precipitated British and French declarations of war.

On May 8, 1945, Germany surrendered unconditionally to Allied and Soviet military commanders, and on June 5 the four-nation Allied Control Council became the *de facto* government of Germany.

At the Berlin (or Potsdam) Conference (July 17–Aug. 2, 1945) President Truman, Stalin and Prime Minister Attlee set forth the principles by which the Allied Control Council was to be guided. They were: Germany's complete disarmament and demilitarization; destruction of its war potential; rigid control of industry; decentralization of the political and economic structure. Pending final determination of territorial questions at a peace conference, the three victors agreed in principle to the ultimate transfer of the city of Königsberg (now Kaliningrad) and its adjacent area to the Soviet Union and to the administration by Poland of former German territories lying generally east of the Oder-Neisse line.

For purposes of control, Germany was divided in 1945 into four national occupation zones, each headed by a Military Governor, assisted by appropriate supervisory and operating staffs.

Efforts to unify Germany were totally unsuccessful, and the western powers were unable to agree with the U.S.S.R. on any fundamental issue. Work of the Allied Control Council was hamstrung by repeated Soviet vetoes; and finally, on March 20, 1948, the U.S.S.R. walked out of the Council. Meanwhile, the U. S. and Britain had taken steps to merge their zones economically (Bizone); and on May 31, 1948, the U. S., Britain, France and the Benelux countries agreed to set up a German state comprising the three western

nes. At the same time the western pow-
s introduced a new German currency.
The Soviet Union replied to these meas-
es by clamping a blockade on all ground
mmunications between the western
nes and Berlin. The western Allies, re-
sing to be driven out of the capital, im-
ediately organized a gigantic airlift to
supplies into the beleaguered city. Be-
re the Russians were finally forced to lift
e blockade on May 12, 1949, 60,000 men
re engaged in the airlift.
In return for lifting the blockade, the
S.S.R. asked only that the Big Four For-
gn Ministers meet again to discuss Ger-
an unification. The conference, meeting
Paris from May 23 to June 20, 1949,
ded as usual in a deadlock.
The Big Four Foreign Ministers met once
ore at Berlin from Jan. 25 to Feb. 18,
54, again without success.

German Federal Republic

Area: 94,634 square miles.
**Population (est. 1954): 49,147,700 (pre-
minantly German).**
Density per square mile: 519.3.
President: Theodor Heuss.
Chancellor: Konrad Adenauer.
**Principal cities (est. 1953): Hamburg,
58,000 (chief port); Munich, 870,000
avarian capital); Cologne, 629,200 (trans-
rtation center); Essen, 624,100 (steel
nter); Frankfurt am Main, 564,400 (man-
acturing); Bonn, 130,000 (capital).**
Monetary unit: Deutschemark (Dm.).
Language: German.
**ligions: (census 1950): Protestant
7%; Roman Catholic 45.2%; others 4.1%.**

The German Federal Republic came into
rmal existence on Sept. 21, 1949, when
e Allied High Commission turned over
it the administration of the U. S., Brit-
and French zones of occupation.
May 8, 1949, the constituent assembly
Bonn had approved a Basic Law or Con-
tution for western Germany; it came
o force on May 23, after approval by the
ndtage of the 11 constituent *Länder*.
rliamentary elections were held on Aug.
and on Sept. 12, Free Democratic leader
eodor Heuss was elected President of
stern Germany. On Sept. 15, the *Bundes-*
confirmed his appointment of Konrad
enauer, leader of the Christian Dem-
atic party, as Chancellor. His party won
weeping victory in parliamentary elec-
ns held Sept. 6, 1953. Heuss was re-
cted President on July 17, 1954.

VERNMENT. With the coming into
ce on May 5, 1955, of a series of agree-
nts signed at Paris on Oct. 23, 1954,
Allied occupation came to an end and
Federal Republic attained full sover-
nty and independence. The Paris agree-
nts followed the rejection by France of
agreement signed May 27, 1952, creating
hin NATO a European Defense Com-
munity. Under the 1954 agreements, Ger-
many and Italy became members of the
Brussels treaty organization created in
1948 and renamed the Western European
Union. Germany also became a member of
NATO.

The Basic Law or Constitution of the
republic provides for a federal form of
government headed by a President elected
every 5 years by a Federal Convention. The
Parliament consists of a *Bundestag* whose
members are elected every 4 years by pop-
ular vote and a *Bundesrat* whose members
are appointed by the *Länder* governments.
Actual executive power is in the hands of
the Cabinet, answerable to the *Bundestag*
and headed by a Chancellor appointed by
the President, subject to the right of the
Bundestag to elect a Chancellor of its own
preference. Provision was made for the ac-
cession of *Länder* in the Soviet zone. Each
of the 9 constituent *Länder* must have a
republican form of government with an
assembly which is elected by universal
suffrage.

The party standing in the *Bundestag*
(elections of Sept. 6, 1953) was as follows:
Christian Democrats 244, Social Democrats
151, Free Democrats 48, All-German 27;
others 17.

One of the 1954 Paris agreements autho-
rized the U. K., the U. S. and France to
keep troops in western Germany, not as
occupation troops but in view of the
"need to ensure the defense of the free
world." A protocol specified that German
federal armed forces would not exceed the
numbers fixed in the EDC treaty of May
27, 1952—*i.e.*, 12 divisions, a tactical air
force of about 1,350 aircraft and light
coastal defense and escort vessels. Under
the Paris agreements relating to NATO,
all forces of NATO countries stationed on
the continent of Europe, including those
of Germany, are with certain exceptions
under the authority of the Supreme Allied
Commander, Europe.

SOCIAL AND ECONOMIC CONDITIONS.
Education. Education is compulsory be-
tween the ages of 6 and 14. In May 1952
there were 28,998 elementary schools with
5,425,000 pupils, 693 higher elementary
schools with 266,409 pupils, 1,527 secondary
schools with 684,041 students, and 17
universities with 75,083 students.
Agriculture. Agriculture is characterized
by mixed farming, the climate and the
soil permitting cultivation of a variety of
crops and most types of livestock. Rye and
potatoes are staple crops in the north;
grains and sugar beets in the central
regions. The northwestern and southern
areas are noted for dairying, while the west
is the chief fruit- and wine-producing re-
gion. The soil is generally poor, and high
crop yields are dependent upon large-scale
use of fertilizers.

Production data for western Germany (excluding the Saar) are as follows (provisional, in thousands of metric tons):

	1952	1953	1954
Wheat	3,291	3,180	2,892
Rye	3,119	3,280	4,098
Barley	1,757	2,072	1,920
Oats	2,616	2,554	2,473
Potatoes	23,854	24,535	26,785
Sugar beets	6,550	8,897	9,013

In 1954, western Germany (excluding the Saar) had 11,520,900 cattle, 1,171,678 horses, 14,524,981 hogs, 1,225,545 sheep.

Western Germany is not self-sustaining in food. Difficulties stem to a considerable extent from the fact that Poland now controls the area east of the Oder-Neisse, which contained 28 per cent of prewar Germany's arable land and produced about 25 per cent of its food.

Industry. Western Germany's industry is well-developed and highly diversified. It accounted for about two-thirds of Germany's prewar industrial production and for a large part of iron and steel production. In March 1955, employment in industry was 16,442,300; there were 1,405,500 unemployed.

Production for western Germany (monthly averages, in thousands of metric tons):

	1952	1953	1954
Pig iron and ferroalloys	1,080	976	1,049
Crude steel	1,317	1,285	1,453
Cement	1,074	1,281	1,355
Cotton yarn	24.37	28.60	30.77
Wool yarn	7.50	8.79	8.77
Rayon yarn	3.59	4.33	4.98
Automobiles	25.09*	30.76*	43.18*
Electrical energy	4,684†	5,038†	5,656†
Manufactured gas	1,495‡	1,538‡	1,503‡

* Thousands of units. † Millions of kwh. ‡ Millions of cu. m.

Shipbuilding has regained its former prominence; launchings in 1954 (268 ships of 963,114 gross tons) were second only to those of the United Kingdom. Industrial production in 1954 was 176% of the 1936 level.

Western Germany is a member of the European Coal and Steel Community, which commenced activities on Aug. 10, 1952. It has jurisdiction over the production and allocation of coal and steel by its member nations.

Trade. Recent foreign trade data for the area which now comprises the republic are as follows (in millions of Deutschemarks, including west Berlin):

	1952	1953	1954*
Exports	16,909	18,526	22,035
Imports	16,203	16,010	19,337

* Provisional.

Leading customers in 1954 were the Netherlands (9%), Belgium (8%), France (8%), Sweden (6%) and Italy (6%). Leading suppliers were the U. S. (12%), France (9%), the U. K. (9%), the Netherlands (8%) and Belgium (5%). Leading exports included ships (9%), electrical machinery and apparatus (8%), coal (5%), machine tools (4%) and coke (4%). Finished manufactured goods comprised 77% of all exports. Imports included cotton and manufactures (6%), wheat (6%), raw copper (4%) and coffee (4%).

Communications. German railway trackage and rolling stock, as well as the canal system, were largely destroyed during World War II, and the lack of adequate transportation seriously hindered German economic recovery. In 1953, the western German rail network had a total length of 19,052 miles, all publicly owned. Highway mileage was 79,437, including 1,315 mi. of *autobahnen*.

As of July 1, 1953, the west German merchant fleet aggregated 1,649,000 gross tons. The principal seaports of western Germany are Hamburg and Bremen.

Inland waterway transportation is of great importance; navigable waterways and canals total 2,650 miles. Over half the traffic is carried on the Rhine River, which links the Ruhr area with Belgian and Dutch ports.

Shipping on the Rhine is controlled by the Central Commission of the Rhine—an international body composed provisionally of U. S., British, French, Swiss, Dutch and Belgian representatives—which was reconvened in October 1945.

Finance. Recent data are as follows (in millions of Deutschemarks):

	1953–54	1954–55*	1955–56*
Revenue	27,309	27,174	28,000
Expenditure	27,949	27,174	28,000

* Budget estimate.

NATURAL FEATURES AND RESOURCES; CLIMATE. The northern plain, the central hill country and the southern mountain district constitute the main physical divisions of western Germany. The Bavarian plateau in the southwest averages 1,600 feet above sea level, but it reaches 9,721 feet in the Zugspitze, the highest point in Germany.

There are several important navigable rivers. In the south the Danube, rising in the Black Forest, flows east across Bavaria into Austria. The other important river flow north. The Rhine, which rises in Switzerland and flows across the Netherlands in two channels to the North Sea, is navigable by smaller ocean-going vessels as far as Cologne. The Rhine and the Elbe which also empties into the North Sea, are navigable within Germany for ships of 40 tons. The Weser, flowing into the North

ea, and the Main and Mosel (Moselle), oth tributaries of the Rhine, are also im-ortant.

Minerals and Forests. Aside from rich eposits of coal and potash, western Ger-iany's mineral wealth is not considerable. he Ruhr, Krefeld and Aachen districts onstitute one of the world's greatest coal ining regions, with total reserves es-mated at 65,000,000,000 tons. Production this area is handicapped by the revalence of thin seams, but distribution favored by easily accessible natural aterways and efficient canals. Known pe-oleum resources are meager, and supplies iron ore, copper, lead and zinc are in-fficient for domestic needs. Mineral pro-uction (excluding the Saar) was as fol-ws in 1954: coal, 128,035,000 metric tons; gnite, 87,812,000 tons; iron ore, 13,036,000 ns; potash (K_2O content), 1,936,000 tons.

About 23 per cent of the total area of estern Germany is covered by commercial rests, which yield timber as well as ma-rial for paper, wood fiber, cellulose and her products.

Fishing is an essential part of the onomy. In 1954 coast and sea fisheries elded 656,959 metric tons valued at n. 228,569,000.

imate. The climate of western Ger-any is intermediate between the oceanic mate of western Europe and the con-ental climate farther east. The average mmer temperature is 60° to 62°. The eltered mountain valleys of the south joy a more temperate climate, especially e valley of the Rhine above Mainz. Rain-ll is heaviest in the south and west (over inches).

German Democratic Republic

Area: 41,700 square miles.
Population (est. 1954): 17,600,000 (pre-minantly German).
Density per square mile: 422.1.
Soviet High Commissioner: G. M. Push-n.
President: Wilhelm Pieck.
Premier: Otto Grotewohl.
Principal cities (est. 1953): Leipzig, 607,-) (trading, publishing center); Dres-n 510,100 (railway center, Elbe port); rl-Marxstadt (Chemnitz), 298,500 (tex-es); Halle am der Saale, 278,400 (rail-y center); Magdeburg, 252,300 (iron and el products).
Monetary unit: Ostmark.

STORY AND GOVERNMENT. The so-led German Democratic Republic com-ses the Soviet zone of occupation eastern Germany. It was proclaimed on t. 7, 1949, with its seat at Berlin, on the is of a Constitution adopted May 30, 9, by a People's Congress chosen under lebiscite arrangement in elections held the Soviet zone and eastern Berlin on y 15 and 16, 1949. The Congress elected a People's Council (*Volksrat*) which was transformed on Oct. 7 into a provisional People's Chamber (*Volkskammer*). A Chamber of the States (*Länderkammer*) was nominated on Oct. 10, and on Oct. 11 both chambers elected Communist-leader Wilhelm Pieck as President of the republic and Otto Grotewohl as Minister-President or Premier. The Constitution is soviet in nature and the government is under complete Communist domination. Soviet government supervision is exercised by the Soviet High Commissioner.

The republic lies largely between the Elbe and Oder rivers, including most of Brandenburg, Mecklenburg and the industrial Saxon and Thuringian lands.

SOCIAL AND ECONOMIC CONDITIONS. About 22 per cent of the population is engaged in agricultural pursuits and the area is almost self-sufficient in foodstuffs. Postwar yields have, however, suffered from droughts and shortages of fertilizers. The most recent production data available in 1955 (in thousands of metric tons):

	1948	1949	1950
Wheat	999	926	815
Rye	1,941	2,025	2,130
Oats	809	1,087*	1,140*
Sugar beets	4,126	3,545	5,400
Potatoes	12,408	8,499	11,160†

* Includes mixed grain. † 1951.

In 1953 there were in the area an estimated 3,876,000 cattle, 8,283,000 hogs, 1,428,000 sheep and 750,000 horses.

Most of the industrial establishments, particularly in heavy industry, have been nationalized. The area accounted for 26 per cent of prewar Germany's industrial production, ranking first in textiles, paper and pulp and ceramics and glass (especially optical glass produced by the famous Jena works). A Two-Year Plan inaugurated in 1949 had the object of raising the volume of production to 81 per cent of the 1936 level by the end of 1950, while a Five-Year Plan initiated in 1951 aimed at doubling the 1936 level by 1955. Unofficial production data are as follows: pig iron (1952: 765,000 metric tons), raw steel (1954: 2,255,000 tons), cement (1952: 2,560,000 tons).

Foreign trade is carried on through government-owned trading companies. Trade is confined largely to Europe. Important imports include foodstuffs, minerals and textiles; exports include machinery, engineering equipment and chemicals.

Railways, highways and inland waterways were reported in 1955 still inadequate to meet the demands of the area's economy. The rehabilitation and expansion of transport facilities was emphasized in connection with the Two- and Five-Year Plans.

The 1955 budget balanced revenue and expenditure at 38,100,000,000 ostmarks.

NATURAL RESOURCES; CLIMATE. The area is not rich in minerals. It has only minor deposits of coal (1953 production: 3,500,000 metric tons) and deposits of iron ore are scanty and of low quality (1952: 748,000 tons). It does have important deposits of lignite (1953: 177,500,000 tons) and crude potash (1951: 1,400,000 tons).

Most of the area is part of a low plain. The climate is temperate for the most part but with more difference between summer and winter than in western Germany. Rainfall throughout most of the area varies between 20 and 30 inches annually.

Berlin

Area: 344 square miles.
Population (est. 1954): 3,369,000.

Berlin, the capital of prewar Germany, is surrounded by the German Democratic Republic. It is occupied by the forces of the U. S., the U. K., France and the U.S.S.R., each having its own sector of occupation. The three western sectors contain 55% of the area and 63% of the population.

The supreme authority in western Berlin is a tripartite Kommandatura which has responsibility for the exercise of the powers reserved to the occupation forces under the Berlin Charter, a document analogous to the former west German Occupation Statute. With the termination of the Allied occupation of western Germany, Allied controls were substantially relaxed.

Other powers of government are exercised by a City Assembly elected by popular vote and a *Magistrat* (city council) chosen by the Assembly.

Supreme authority in the eastern sector of Berlin is exercised by the Soviet High Commissioner. Powers not exercised by him or by the German Democratic Republic are vested in a "rump" city government, which proclaimed itself in power Nov. 30, 1948. Major anti-Communist riots broke out in east Berlin in June 1953.

The Saar

Area: 991 square miles.
Population (est. 1954): 959,649.
Density per square mile: 968.4.
Premier: Johannes Hoffman.
Principal city: Saarbrücken (est. pop. 100,000).
Monetary unit: French franc.

The Saar is an industrial and mining region lying on Germany's western frontier north of Lorraine. Under the Treaty of Versailles it was detached from Germany and placed under the administration of the League of Nations, its coal mines being transferred to France. It voted in Jan. 1935 for reunion with Germany.

Part of the French zone of occupation after World War II, it now has, under agreements with France, legislative, executive and judicial autonomy, subject to the reserved powers of France in the maintenance of the economic, monetary and customs union between it and France. One of the 1954 Paris agreements provided for the so-called Europeanization of the Saar and stipulated that a Commissioner to represent the Saar abroad should be appointed by the western European union rather than France. Under the Saar's Constitution it has a popularly elected Diet of 50 members, to which the Cabinet headed by the Premier is responsible. There is no head of state as such.

Coal reserves are conservatively estimated at 9,000,000,000 metric tons. Under an agreement concluded with France on Mar. 3, 1950, the mines are under French management with some Saar participation, an annual royalty being paid to the Saar by France. Production in 1954 included 16,824,000 metric tons of coal, 2,808,000 tons of raw steel and 2,496,000 tons of pig iron and ferroalloys.

Greece (Kingdom)

(Hellas)

Area: 51,182 square miles.*
Population (estimated 1954): 7,900,000* (1940, excluding the Dodecanese: Greek, 92.8%; Turkish, 3.8%; Macedonian, 1.3%; Spanish, 1%; others, 1.1%).
Density per square mile: 154.4.*
Sovereign: King Paul I.
Premier: Alexander Papagos.
Principal cities (census 1951, municipal areas only): Athens (Athenai) 559,250 (capital); Piraeus (Peiraievs) 184,980 (port of Athens); (1940): Saloníka (Thessalonike) 216,838 (seaport); Patras (Patrai) 88,414 (seaport); Volos 51,134 (seaport).
Monetary unit: Drachma.
Languages: Greek, Turkish.
Religions: Greek Orthodox, 96%; Mohammedan, 2%; Jewish, 1.1%; others, .9%.

* Including the Dodecanese.

HISTORY. Greece, with a recorded history going back to 776 B.C., reached the peak of its glory in the 5th century B.C., and by the middle of the 2nd century B.C., it had declined to the status of a Roman province. It remained within the Eastern Roman Empire until Constantinople fell to the Crusaders in 1204. In 1453, the Turks took Constantinople, and by 1460 Greece was a Turkish province. The insurrection made famous by the poet Lord Byron broke out in 1821, and in 1827 Greece was set up an independent nation, with sovereignty guaranteed by Britain, France and Russia. Prince Otto of Bavaria was recognized as King five years later, but he was ousted by a revolution in 1862. Prince William of Denmark, as George I, succeeded him.

Up to this time Greece consisted only of the Peloponnesus and the lower part of the peninsula north of the Gulf of Corinth. Britain gave Greece the Ionian Islands in

364, and Thessaly was added in 1881. reek success in the Balkan Wars of 1912– brought the addition of Macedonia, pirus, Crete and many Aegean Islands. In orld War I, Greece kept a precarious neu- ality until June, 1917, when King Con- antine (who had succeeded George I in 13) was forced to abdicate in favor of his cond son, Alexander. Greece then en- red the war on the Allied side. By the eaty of Sèvres, Greece was awarded hrace and part of Asia Minor. Turkey, owever, drove the Greeks out of Smyrna 1922.

Greece was proclaimed a republic on arch 25, 1924, and there followed strife d dissension between Royalists and Re- blicans, although fair order was main- ined during the premierships of Eleu- erios Venizelos from 1928 to 1933.

In 1935, the people voted for the return King George II, who had abdicated in 24 after a short rule. In April 1936, neral John Metaxas became Premier and August he had abolished Parliament d set up a dictatorship.

Greece was invaded by the Italians in 40. By April 1941, the Greeks not only d driven the Italians out of Greece but re well into Albania. The Germans came Mussolini's rescue, invaded Greece from lgaria, and took Athens on April 27, 41. Starvation and harsh persecution of e Greeks were common during the Axis cupation. After liberation, Greece be- me a land of conflict with armed bands Royalists and Communists terrorizing e nation. The government, which had d the country, returned in Oct. 1944, lowing Greece's liberation by British ces. Five years of civil war followed, with vernment troops fighting Communist-led errillas, who were aided by the neigh- ring Communist satellites of the Soviet ion.

The country approved the return of orge II by a large majority in a plebi- te held Sept. 1, 1946. The King returned Sept. 28 but died April 1, 1947. He was ceeded by his brother Paul I.

An important postwar development in ubled Greece was the extension of S. financial and technical assistance, pervised by a U. S. mission. In May 1947, U. S. appropriated $300,000,000 for eek aid. Greek forces thus were able to ke good progress against the Communist rrillas, and the cessation of hostilities s announced on Oct. 16, 1949.

lections held on Nov. 16, 1952, re- ted in a sweeping victory for the ek Rally party, which won 239 out of 300 seats in the national assembly. ld Marshal Alexander Papagos, its ler, became Premier on November 18, 2.

reece was admitted to NATO in 1951 and signed a defensive alliance with Turkey and Yugoslavia in 1953.

GOVERNMENT AND DEFENSE. Greece is a constitutional hereditary monarchy. Nominal executive power is vested in the King, but the government is administered by a Council of Ministers, headed by the Premier, which must enjoy the Assembly's confidence.

Military service is compulsory. U. S. aid in 1948 made possible an increase in army strength from 120,000 to 132,000; the National Guard was also increased from 30,000 to 50,000. Greek forces, which were advised by a U. S. military mission, were demobilized to some extent following the cessation of hostilities with the guerrillas in Oct. 1949. An infantry unit of 1,000 men and several aircraft were dispatched to Korea. In Dec. 1954, the navy had one cruiser, 3 fleet destroyers, 4 submarines and 19 frigates and escort craft.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory for all children between the ages of 6 and 14. Illiteracy was estimated at 38 per cent in 1940. In 1951–52, there were 8,613 elementary schools, with 921,632 pupils; 314 secondary schools, with 178,098 pupils; and 2 universities (Athens and Salonika), with 6,780 students.

About three-quarters of the population engages in agricultural pursuits, although only one-fifth of the land is arable. Most of the cultivated area is devoted to cereals: wheat (1954: 1,200,000 metric tons), barley (236,000 tons) and maize (255,000 tons). There are also olive trees, vines, tobacco (1953: 61,300 metric tons) and currants. Olive oil production in 1954 was about 90,000 tons. The principal fruits are oranges, lemons, figs, mandarins, apples and pears. At the beginning of 1953, there were 7,784,000 sheep, 873,000 cattle and 587,000 hogs. Wool production in 1953 was 5,000 metric tons (clean basis).

Development of large-scale Greek manufacturing is blocked by lack of coal resources and of capital. The most valuable products are textiles, chemicals and food items. Among other processed or manufactured products are olive oil, wine, spirits, flour, carpets, leather, cigarettes and building materials.

Postwar trade has been financed largely by U. S. aid. Recent figures are as follows (in millions of U. S. dollars):

	1952	1953	1954
Exports	120	132	152
Imports	346	294	330

Chief exports in 1954 were tobacco (40%) and currants and raisins (18%). Leading customers were western Germany (24%), Italy (13%) and Britain (13%); leading suppliers, western Germany (17%), Italy (16%) and the U. S. (14%).

The merchant marine plays a vital part in the national economy. On June 30, 1954, it totaled 355 ships (100 tons and over) aggregating 1,176,862 gross tons, according to *Lloyd's Register*.

Railway mileage in 1952 totaled 1,644; highway mileage in the same year, 13,705. Reconstruction of the Greek transport system, financed by U. S. aid, was completed in 1949; it included extensive work on highways, port and dry-dock facilities, railways and bridges.

Recent public finance data are as follows (in millions of new drachmas):

	1951–52	1952–53*	1953–54*
Revenue	5,879	7,892	10,620
Expenditure	7,459	8,291	10,320

* Budget estimate.

Greek minerals are varied but are exploited only moderately. Principal ones are lignite, iron ore, iron pyrites, magnesite, chromite, lead, bauxite, molybdenum, emery, marine salt and the country's famous marble.

A fifth of the country is forested, largely with pine, fir and oak. Resin and turpentine are main forest products. The principal sea product is sponges.

NATURAL FEATURES AND RESOURCES; CLIMATE. North central Greece, Epirus and western Macedonia all are mountainous. The main chain of the Pindus Mountains rises to 9,000 feet in places, separating Epirus from the plains of Thessaly. Greek Thrace is mostly a lowland region separated from European Turkey by the lower Maritsa River.

Among the many islands are the Ionian group off the west coast, 742 square miles in area; the Cyclades group to the southeast, 996 square miles; other islands in the eastern Aegean, including Lesbos, Samos and Khios, 1,486 square miles; and Crete, the fourth largest Mediterranean island, 3,199 square miles. Crete, largely mountainous, is about 160 miles in length, with a width varying from 7 to 35 miles.

The Dodecanese (area 1,035 sq. mi.), a group of 13 islands in the Aegean Sea near the coast of Asia Minor, were ceded to Greece by the 1947 Italian peace treaty and were formally transferred on March 7, 1948.

The Greek climate is varied but generally similar to that of other Mediterranean countries. The maritime regions have a temperate climate, with short winters and little snow or frost. In the uplands the winters are long and severe. Precipitation is heaviest in the mountains. Mean temperature at Athens is about 63°, with maximum of 99° in July and minimum of 31.5° in January; annual rainfall there is little more than 15 inches. The summer heat is moderated by sea breezes and cool northerly winds from the mountains.

Guatemala (Republic)

(República de Guatemala)

Area: 45,452 square miles.
Population (est. 1954): 3,149,000 (Indian, 60%; white, 5%; mixed and other, 35%).
Density per square mile: 69.3.
President: Col. Carlos Castillo Armas.
Principal cities (census 1950): Guatemala, 284,922 (capital); Quezaltenango, 27,696 (coffee, sugar); Puerto Barrios, 15,332 (port); Mazatenango, 11,032 (coffee).
Monetary unit: Quetzal.
Language: Spanish.
Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Once the site of the ancient Mayan civilization, Guatemala was conquered by Spain in 1524 and for the next 300 years was the major center of Spanish government in Central America. Guatemala was one of the founders of the Central American Union in 1823, and in 1839 set itself up as a republic. From 1898 to 1920, the dictator Manuel Estrada Cabrera ran the country, and from 1931 to 1944, General Jorge Ubico Castañeda was the "strong man." In July 1944, the National Assembly elected General Federico Ponce President, but he was overthrown in October, and in December Dr. Juan José Arévalo was elected as the head of a leftist regime which continued to press its reform program in the face of conservative resistance. He took office on March 15, 1945. Jacobo Arbenz Guzmán, administration candidate with pro-Communist leanings, won the Nov. 1950 elections and took office March 15, 1951. He was ousted by anti-Communist forces on June 27, 1954, and a military junta took over. Col. Carlos Castillo Armas, one of its members, was confirmed as President in a popular referendum held Oct. 10, 1954.

A new Constitution was being drafted in 1955 to replace that of 1945, which provided that a President be elected every six years by direct vote and could not succeed himself immediately. Legislative power was vested in a unicameral National Assembly whose members are popularly elected for four-year terms, half the members being elected every two years. Guatemala has an army of about 6,000, plus 3,000 national police. It also maintains a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education, advanced under Ubico, is free and compulsory. Illiteracy (7 years and over) was 72.2% in 1950. In 1953, 3,537 primary schools had 191,330 pupils and 125 postprimary schools 17,251 pupils. The University of Guatemala at Guatemala City had 4,005 students in 1954.

Most of the ruling class is drawn from the 5 per cent of the population that is white. Spanish is the official language, but at least 18 Indian dialects are spoken. Indians are the chief labor supply.

Agriculture engages 90 per cent of Guamalans. Coffee accounts for a fifth of the ltivated land and a large part of the ports. Recent foreign-trade data are as lows (in millions of quetzales):

	1952	1953	1954
ports	87.5	88.9	95.7
ports	75.7	79.5	87.3

In 1953 the U. S. took 78% of the exports d supplied 65% of the imports. Chief ports were coffee (77%) and bananas 4%). Imports included flour, petroleum oducts, drugs and textiles.

Guatemalan manufacturing is small and al. The country has 600 miles of public lway connecting the coasts, 280 miles of vate railway and 4,800 miles of highys. Puerto Barrios, on the Atlantic side, he main port of entry, and is linked by l to the capital.

TURAL FEATURES AND RESOURCES; IMATE. Most of Guatemala is mounnous, with many volcanic peaks. The thern part is the great plain of Petén, gely uncultivated and sparsely popued. The narrow Pacific slope, well tered and fertile, is the most densely pulated and the most productive part Guatemala.

Guatemala has deposits of gold, silver, d, tin, copper, mercury, coal, antimony, , chromite and sulfur, but many of se minerals exist in insufficient quantity justify exploitation, and only lead and omite are produced commercially.

The country's vast forests, mostly in the én region, yield chicle for chewing gum, chona bark, a small amount of rubber, dyewoods and cabinet woods, such as ar, mahogany and logwood.

he climate is hot and humid on the sts, with heavy rainfall (as high as inches), but is temperate in the highds.

Haiti (Republic)

(République d'Haïti)

rea: 10,748 square miles.
opulation (est. 1954): 3,400,000 (Ne- 95%; mulatto, 5%).
ensity per square mile: 316.3.
resident: Paul E. Magloire.
rincipal cities (census 1950)*: Port-au-ce, 142,840 (capital, chief port); Cap tien, 24,957 (seaport); Gonaïves, 13,534 rming district); Les Cayes, 11,835 (sea-; coffee).
onetary unit: Gourde.
nguage: French.
eligion: Roman Catholic.
*ities proper, excluding surrounding communes.

TORY. Haiti, the only Negro republic he Western hemisphere, occupies the tern third of the island of Hispaniola, ch was discovered by Columbus in 1492. Its political past is stormy, and today it is the smallest and most thickly populated of the American republics—a nation beset by illiteracy and poverty.

After successive Spanish and French domination, Haiti became a kingdom in 1801 under Toussaint L'Ouverture, a Negro leader. He was later captured by the French and died in prison, but the kingdom lasted and declared its independence in 1804, becoming a republic in 1820. In 1822 Haiti took over all of Hispaniola, and carried on until 1843, when the eastern two-thirds of the island revolted and established the Dominican Republic. Today the island is the only one in the world containing two sovereign nations.

Decades filled with revolution, corruption and disease came to a bloody climax in 1911–15, when Haiti had seven presidents in four years. After the assassination of the last one, United States Marines moved in. By a 1916 treaty, the United States agreed to help administer the country until the Haitians proved themselves capable of orderly self-government. The last Marines left in 1934, but a U. S. fiscal expert continued to supervise customs until 1941. On January 11, 1946, President Elie Lescot was driven from the country by revolution, and a three-man military junta took over until the election of President Dumarsais Estimé on Aug. 16, 1946. He was ousted in 1950 and succeeded after new elections by Paul E. Magliore.

GOVERNMENT. Normally the President is elected for six years by two-thirds vote of the National Assembly. That body consists of a 37-member Chamber of Deputies, elected for four years by popular vote, and a 21-member Senate elected for six years. The Garde d'Haïti, about 5,000 strong, serves as army and police force.

SOCIAL AND ECONOMIC CONDITIONS. Most Haitians are descended from African slaves. Their illiteracy rate is estimated at 92 per cent. Although 1951 figures showed enrollment of 128,000 in primary and secondary schools, actual attendance is probably lower. Mulattoes—lightened by the blood of the early French settlers—dominate the political and social life of the nation. Many of them are Paris-educated. While the ruling classes speak pure French, most of the people speak the patois of Creole French, and many of them still practice the strange folk religion called voodoo.

Haiti is predominantly agricultural. Coffee, which makes up more than 30 per cent of Haitian exports, is the principal crop, followed by sisal, sugar cane, cotton, bananas and cacao. Coffee exports in 1953–54 amounted to 31,777 metric tons. Manufacturing is almost entirely for local consumption, but there are several sisal factories and sugar refineries.

Recent trade data are as follows (in millions of gourdes):

	1951–52	1952–53	1953–54
Exports	264.6	189.0	277.7
Imports	253.5	225.8	237.8

Leading exports in 1953–54 were coffee (78%), sisal (9%) and cacao (4%). Leading customers were the U. S. (45%), Belgium (22%) and France (11%); leading suppliers, the U. S. (63%), Canada (8%) and Britain (4%).

In 1953 Haiti had about 2,000 miles of improved road and about 180 miles of railway. International air service is provided by PAA and KLM.

Recent public finance data, in millions of gourdes:

	1951–52	1952–53	1953–54
Revenue	146.3	136.4	161.1
Expenditure	159.4	152.1	175.0

NATURAL FEATURES AND RESOURCES; CLIMATE. Haiti, about the size of Maryland, is two-thirds mountainous, with the rest marked by great valleys, extensive plateaus and small plains. The most densely populated and productive region is the Cul de Sac plain, near Port-au-Prince.

Minerals, relatively unexploited, include gold, silver, iron, copper, antimony, tin, coal, nickel and gypsum. In 1943, a sizable bauxite deposit was found and signed over for U. S. development. Inland Haiti has forests of mahogany, pine, lignum vitae and other commercial woods.

The climate is hot on the coast, temperate in the mountains, with hurricanes frequent in the May-to-October rainy season. Port-au-Prince has a mean annual temperature of 81°. Annual rainfall in Haiti varies from about 20 to 100 inches.

Hashemite Kingdom of Jordan. See Jordan

Honduras (Republic)

(República de Honduras)

Area: 43,277 square miles.
Population (est. 1954): 1,608,000 (mestizo, 86%; Indian, 10%; Negro, 2%; white, 2%).
Density per square mile: 37.2.
President: Julio Lozano.
Principal cities (census 1950): Tegucigalpa (including twin city of Comayagüela), 72,385 (capital); San Pedro Sula, 21,139 (bananas); La Ceiba, 16,645 (seaport, bananas); Tela, 12,614 (seaport).
Monetary unit: Lempira.
Language: Spanish.
Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Columbus discovered Honduras on his last voyage in 1502; it was a Spanish colony and part of Guatemala until 1821, the year of the general Central American revolt against Spain. Honduras declared its independence in 1838, and has been troubled by revolution and war ever since. American Marines intervened in 1903 and 1923. In 1931, 1932 and 1937, major revolutions were crushed by force. The Nicaraguan-Honduras boundary dispute of 1937 almost caused war, and in April 1945, the country was invaded from Guatemala by a group of Honduran exiles, who were suppressed.

Legislative power is held by the unicameral Congress of Deputies, whose 48 members are popularly elected for six years. The President also is elected for six years and is not supposed to succeed himself.

Military service is compulsory. The army is estimated to be slightly under the 2,500 strength agreed upon by the Central American states.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and supposedly compulsory, but less than 25 per cent of the children go to school. The government is trying to reduce illiteracy, which was 64.8% according to the 1950 census. In 1953–54, 2,214 primary schools had 117,292 pupils; secondary, normal and commercial schools had 6,847 students and the National University at Tegucigalpa, 843 students.

Most of the population is of mixed Spanish-Indian blood, but the ruling class is of nearly pure Spanish descent. Except among isolated Indian tribes, Spanish is the common language.

The Honduran economy depends on bananas, which usually account for more than 50 per cent of the nation's exports. The biggest plantations are along the northern coast. Exports in 1952–53 totaled 12,070,760 stems, more than 90 per cent produced by two U. S. companies. Other crops are corn, coffee, rice, henequen, tobacco and coconuts. Honduras also is an important source of sarsaparilla. Cattle raising and dairy farming flourish on rich pasture lands. Manufacturing is small and local.

Recent foreign trade data are as follows (in millions of lempiras):

	1950–51	1951–52	1952–53
Exports*	53.7	68.9	108
Imports	78.9	109.2	114

*Unadjusted for banana undervaluation.

In 1952–53 the U. S. took 75% of the exports and supplied 71% of the imports. Leading exports were bananas (52%), coffee (25%), pine lumber (6%) and silver (6%).

Honduras' railroads—920 miles—are almost entirely owned by fruit companies and used to transport bananas; they are confined to the northern coastal area.

ATURAL FEATURES AND RESOURCES; LIMATE. Honduras, in the north central rt of Central America, has a 400-mile aribbean coast-line and a 40-mile Pacific ontage. Generally mountainous, it has rtile plateaus and river valleys and narw coastal plains.

In 1952–53 Honduras exported 3,622,946 y oz. of silver; it and gold are the st important mineral products. Copper d iron exist in paying quantity but are developed. The country is noted for rich rest resources, particularly the tropical rdwoods. In 1952–53, 623,000 bd. ft. of hogany lumber and logs and 54,850,000 . ft. of pine were exported.

The climate is oppressive in the coastal vlands, pleasant in the interior highds. At Tegucigalpa, maximum temperare is about 90° (in May), and minimum (December).

Hungary (Republic)

Area: 35,893 square miles.
Population (estimated 1953): 9,600,000
agyar, German, Slovak).
Density per square mile: 267.5.
Chairman of Presidium: István Dobi.
Prime Minister: Andras Hegedus.
Principal cities (census 1948*): Budat, 1,058,288 (capital, Danube port); ged, 132,688 (textiles, wheat); Debrecen, ,570 (livestock); Kecskemét, 88,283 rticulture); Pécs, 77,529 (farming).
Monetary unit: Forint.
Languages (est. 1947): Hungarian 92.9%, rman 5.1%, Slovak 0.8%, Serbo-Croat Slovene 0.6%; others 0.6%.
eligions (est. 1947): Roman Catholic %, Greek Catholic 2.5%, Calvinist %, Lutheran 6.0%, Jewish 4.3%, Greek hodox 0.4%.
*Provisional figures.

TORY AND GOVERNMENT. About thousand years ago, Hungary was t of the Roman provinces of Pannonia Dacia on the empire's borders. In A.D. it was invaded by the Magyars, who nded a kingdom. Christianity was ac-ed during the reign of Stephen I (St. hen) from 997 to 1083. The peak of gary's great period of medieval power e in 1342–82 under King Louis the at (Louis I) of Anjou, whose dominions ched the Baltic, Black and Mediter-an seas. When the Turks smashed a garian army in 1526, western and hern Hungary accepted Hapsburg rule scape Turkish occupation. Transylva-became independent under Hungarian ces. Intermittent war with the Turks waged thereafter for some years.

ter the suppression of the 1848 revolt nst Hapsburg rule led by Louis Kos-, the dual monarchy of Austria-Hun-was set up in 1867.

he dual monarchy was defeated with other Central Powers in World War I, and the new Hungary underwent hard times. First there was a short-lived Socialist republic in 1918. The chaotic Communist rule of 1919 under Béla Kun ended with the Rumanians occupying Budapest on Aug. 4, 1919. When the Rumanians left, Admiral Nicholas Horthy entered the capital with a national army. The Treaty of Trianon of June 4, 1920, cost Hungary 75 per cent of its land and more than 50 per cent of its population. Meanwhile, the National Assembly had restored the legal continuity of the old monarchy; and on March 1, 1920, Horthy was elected Regent.

After 1920, Hungary was in effect ruled by its great land owners, but the turn came in 1932 with the accession of General Julius de Gömbös, a pro-Fascist, as Prime Minister. Under Gömbös and his successors (Kaloman Daranyi in 1936 and Béla Imrédy in 1938) co-operation with Italy and Germany was Hungary's guiding principle. Hungary signed the anti-Comintern pact on Jan. 13, 1939, and the Three Power Pact of Germany, Italy and Japan on Nov. 20, 1940. As inducement and reward for these actions, Hungary got part of Slovakia and all of Ruthenia from Czechoslovakia in 1938 and 1939, and northern Transylvania from Rumania in 1940.

Following the German invasion of Russia on June 22, 1941, Hungary joined the attack against the U.S.S.R., but the war was not popular and Hungarian troops were almost entirely withdrawn from the eastern front by May 1943. The government of Nicholas von Kállay was overthrown March 19, 1944, and German occupation troops set up a puppet government after Admiral Horthy's appeal for an armistice with advancing Soviet troops had resulted in his overthrow on Oct. 16. The German regime soon fled the capital, however, and on Dec. 23 a provisional government was formed in Soviet-occupied eastern Hungary. On Jan. 20, 1945, it signed an armistice in Moscow. On Feb. 1, 1946, the National Assembly approved a constitutional law abolishing the 1,000-year-old monarchy and establishing a republic. Through their control of the police, the Communists eventually forced Prime Minister Ferenc Nagy to resign on May 30, 1947, and secured the appointment of a left-wing Smallholder, Lajos Dinnyes, in his place. The Communists emerged as the strongest single party in national elections held Aug. 31, 1947. President Zoltan Tildy resigned July 30, 1948, and was replaced by leftist Arpád Szakasits. István Dobi, also a left-wing Smallholder, replaced Dinnyes on Dec. 10, 1948.

The Communist regime devoted itself to the transformation of Hungary into a people's democracy modeled after the U.S.S.R. Szakasits was replaced by Sandor

Ronai on Apr. 26, 1950. Communist leader Matyas Rakosi became Prime Minister Aug. 15, 1952, and Dobi became Chairman of the Presidium. Rakosi stepped down in favor of Imre Nagy, another Communist, on July 4, 1953. Nagy was ousted and replaced by Andras Hegedus on Apr. 18, 1955.

The Soviet-type Constitution adopted by Parliament on Aug. 18, 1949 declared Hungary to be a "people's republic." The supreme organ of state control was declared to be the Parliament, with deputies elected every 4 years by direct vote. When Parliament is not in session, power is exercised by the Presidium headed by a Chairman. Executive power is vested in the Cabinet headed by the Premier.

Only the Communist-controlled, left-wing coalition was represented in the National Assembly after elections held May 15, 1949, in which only one slate of candidates was presented.

PEACE TREATY OF 1947. The final peace treaty, which took effect Sept. 15, 1947, fixed Hungary's frontiers as they were on Feb. 1, 1938, except that a small bridgehead on the south bank of the Danube opposite Bratislava was ceded to Czechoslovakia. Hungary was to pay reparations of $300,000,000 over a period of 8 years, $200,000,000 to the Soviet Union and $100,000,000 to Yugoslavia and Czechoslovakia. The treaty also provided freedom of navigation on the Danube for nationals of all states.

The strength of Hungarian armed forces was fixed by the treaty as follows: army, 65,000, including frontier, anti-aircraft artillery and river flotilla personnel; air force, 90 planes with a personnel of 5,000. Actual strength of the army by 1952 was estimated at 165,000; security forces, 100,000.

SOCIAL AND ECONOMIC CONDITIONS. Education is state-controlled and is compulsory between the ages of 6 and 14. Parochial schools were nationalized in 1948. Illiteracy (7 years and over) was estimated at 5% in 1949. In 1951–52 there were 6,166 elementary schools with 1,213,000 pupils and 405 secondary schools with 107,900 pupils. The 28 universities and colleges had 40,700 students.

Agriculture is the basis of Hungarian economic life, engaging more than half the population. The Land Reform Act issued in March, 1945, provided for the confiscation of all estates over 1,500 acres; about 8,000,000 acres were divided among some 500,000 families. Cereals grown in the fertile Danubian plains are the chief crops. Leading crops in 1953 were wheat (2,150,000 metric tons), potatoes (2,350,000 tons), barley (700,000 tons), rye (725,000 tons), oats (200,000 tons), maize (2,450,000 tons) and sugar beets.

In addition, cultivation of vines, fruit and garden produce is important; the famous Tokay wine is produced on the southern slopes of the Hegyalja in the northeast. Wine production averages 100,000,000 U. S. gallons annually (1954: 105,600,000 U. S. gallons).

Horse-breeding is a traditionally important branch of agriculture. Hungarians have a great love for horses, and their excellent breeds were exported in large numbers before World War II. Livestock in 1951 included 1,700,000 cattle, 4,500,000 hogs and (1949) 570,000 horses and 650,000 sheep.

The dominant industries are all based on agriculture, with flour milling in first place, followed by sugar refining, brewing and canning. The second group of industries make hardware and machinery. Most of the machine industry is concentrated in Budapest and Györ. Cotton leads the textile industry, especially in Budapest, which is also a center of woolen manufactures. Hemp and flax weaving are important. An estimated 989,000 persons were employed in industry in 1951. Almost all industrial facilities were nationalized under laws passed in 1946, 1948 and 1949. In addition, the Soviet Union took over all German-owned plants as reparations, and in 1946 Soviet-Hungarian companies were formed to exploit bauxite, petroleum, and air and river navigation; the Soviet shares in these companies were sold to Hungary in Nov. 1954.

Exports in 1950 were valued at $257,000,000 and imports at $265,000,000. Chief destinations of exports were Poland, Czechoslovakia, Rumania and Bulgaria, 36.6%, and the U.S.S.R., 25.7%; chief suppliers, Poland, Czechoslovakia, Rumania and Bulgaria 36.6%, and the U.S.S.R., 22.7%. Leading exports included grain, textiles, live animals and animal products, and machinery.

The focal point in the country's transportation system is the Danube River, navigable for 423 miles in Hungary. The nation's central location makes it the center of an important transit trade; its prewar river fleet was the largest on the Danube. Railroad mileage in 1951 totaled 7,100; highway mileage in that year, 15,976.

NATURAL FEATURES AND RESOURCES.

CLIMATE. Most of Hungary is a fertile rolling plain lying east of the Danube, and drained by the Danube and the Tisza Rivers. In the extreme northwest is the Little Hungarian Plain. South of that area is Lake Balaton, 250 square miles, the largest lake of western and central Europe.

While Hungary generally is mineral-poor it has an estimated 250,000,000 tons of bauxite—about 25 per cent of the world's known reserves. Production in 1953 was

imated at 1,400,000 metric tons. The coal of low quality and is insufficient to et domestic needs; production in 1953 s estimated at 2,100,000 metric tons d that of lignite at 19,200,000 tons. Other nerals include iron ore, manganese and d. Petroleum production in 1953 was ut 6,365,000 barrels. Uranium is re- ted to exist in Hungary.

About 12 per cent of Hungary is forested, the products are of little importance. ere are valuable fisheries in Lake Bala- and on the Danube.

Hungary's mean annual temperature ges from 48° in the north to 52° in the th. Precipitation varies from 30 to 35 nes in the Bakony Forest to less than inches in the east; most of the rain s in May and June. High summer tem- atures and a long autumn are favorable agriculture.

Iceland (Republic)

(Ísland)

rea: 39,709 square miles.*
opulation (est. Dec. 31, 1954): 155,200 nost entirely Icelandic).
ensity per square mile: 3.9.
resident: Asgeir Asgeirsson.
rime Minister: Olafur Thors.
rincipal city (est. 1954): Reykjavik, 00 (capital and only large city).
onetary unit: Króna.
nguages: Icelandic, Danish.
eligion: Evangelical Lutheran.
ncluding several off-shore islands.

TORY AND GOVERNMENT. Iceland first settled shortly before 900, mainly Norse. A Constitution drawn up about created a form of democracy and pro- d for an Althing, or General Assembly, the oldest legislative body in the d. In 1262–64, Iceland came under vegian-Danish rule. In 1874 Icelanders ined their own Constitution. In 1918 nark recognized Iceland as a separate with unlimited sovereignty, but still inally under the Danish King. On June 944, after a popular referendum, the ing proclaimed Iceland a completely pendent republic.

e British occupied Iceland in 1940, im- ately after the German invasion of nark. In 1942, the United States took the burden of protection. Iceland re- to abandon its neutrality in World II, and thus forfeited charter member- in the United Nations, but it was co- tive with the Allies throughout. Ice- joined the North Atlantic Treaty Or- ation in 1949, and in May 1951, U. S. s again landed at Iceland's request d in its defense preparations.

nstitutionally, the President of Iceland cted for four years by popular vote. utive power of the state resides in the Prime Minister and his Cabinet. The Althing is composed of two houses, one with 17 members and the other with 35; each has equal constitutional power. Iceland has no army or navy.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is virtually unknown in Iceland. Education is compulsory from 7 to 15, and mobile schools are sent traveling through the sparsely settled areas. When the University of Iceland, established in 1911, needed new buildings in 1935, the government licensed it to conduct a national lottery to raise the funds. The high number of scholarships and the low tuition fees make higher education virtually free.

Iceland publishes more books, newspapers and magazines per capita than any country in the world. Its language, Icelandic, has no dialects and has changed little through the centuries. In addition, Danish is widely understood and spoken. The Evangelical Lutheran Church is state-supported, but there is complete religious freedom.

Approximately six-sevenths of Iceland is unproductive, and only one-fourth of one per cent is under cultivation. With about 30 per cent of the population engaged in farming, sheep raising is the most important branch of this industry. Hay, potatoes and turnips are the principal crops.

Recent trade data are as follows (in millions of krónur):

	1952	1953	1954
Exports	639.8	706.3	845.9
Imports	911.4	1,111.3	1,130.4

Fish and fish products accounted for 96% of the exports in 1954. Leading customers were the U. S. (17%), U.S.S.R. (15%) and Britain (9%); leading suppliers, the U. S. (20%), U.S.S.R. (12%) and Britain (11%).

Iceland has no railways. Highways total about 4,450 miles. In Oct. 1953 the merchant marine had 550 vessels (12 tons and over), aggregating 98,659 gross tons.

NATURAL FEATURES AND RESOURCES; CLIMATE. Iceland, a bleak, volcanic island about the size of Kentucky, has maximum dimensions of 298 by 194 miles; it is mostly tableland, high, rugged and barren. It is one of the world's most volcanic regions.

Small fresh-water lakes are found throughout the island, and there are many natural oddities, including hot springs, geysers, sulfur beds, canyons, waterfalls and swift rivers. More than 13 per cent of the area is covered by snowfields and glaciers, and most of the people live in the 7 per cent of the island comprising fertile coastlands. Vegetation is of the Arctic type, mostly stunted. Except for peat and fisheries, Iceland has no natural resources.

About one-sixth of the people are engaged in fishing, and fish and fish products make up the bulk of Iceland's exports. The

annual catch averages approximately 350,000 metric tons (1954: 387,528 tons). Many European fishing craft visit Iceland's fisheries, which lead the world in cod and are important for herring, plaice and halibut.

The Gulf Stream modifies Iceland's climate to make it much like that of southern Canada, though with longer winters and shorter summers. The mean annual temperature at Reykjavik is 39.4°, with January the coldest month (34.2°) and July the warmest (51.6°). Rainfall varies from about 12 inches annually to 85.

Indonesia (Republic)
(Republik Indonesia)

Area: 583,479 square miles.*
Population (est. Feb. 1954): 78,389,000 (Indonesian, except for an estimated 1,500,000 Chinese and 100,000 Europeans in 1951).
Density per square mile: 134.3.
President: Achmed Sukarno.
Premier: Burhanuddin Harahap.
Principal cities (est. 1951): Jakarta (Batavia), 2,800,000 (capital); Jokjakarta, 1,848,886 (former Republican capital); Surabaja, 714,898 (seaport, naval base); Bandung, 659,213 (commercial center, west Java); Semarang, 310,942 (seaport, central Java); Surakarta, 266,365 (sugar, tobacco).
Monetary unit: Rupiah.
Languages: Bahasa Indonesia (Malay) (official), Dutch, Javanese, Sundanese, Madurese.
Religions: Mohammedan (predominant), Christian (about 2,500,000), Brahmin, Buddhist.

* Excluding Netherlands New Guinea.

HISTORY. The sovereign state of Indonesia, a group of islands with a total area more than twice that of Texas, constitutes one of the world's richest natural areas. These islands—Sumatra, Java, Madura, central and southern Borneo, Celebes and the Moluccas—would reach from San Francisco to Honolulu if their extent was transposed to the eastern Pacific. They have great wealth in tin, rubber, spices, oil, quinine and copra.

During the first few centuries of the Christian era, most of the islands came under the influence of Hindu priests and traders who spread their culture and religion. Moslem invasions began in the 13th century, and most of the area was Moslem by the 15th century. Portuguese traders arrived early in the 16th century but were ousted by the Dutch about 1595. After Napoleon subjugated the Netherlands homeland in 1811, the British seized the islands but returned them to the Dutch in 1816. In 1922 the islands were made an integral part of the Netherlands kingdom.

In World War II, the Japanese military occupation with nominal native self-government continued until Aug. 1945, except in outlying parts of New Guinea and Borneo. About the time of the Japanese surrender, a self-styled Indonesian Republic headed by Achmed Sukarno sprang up and took over effective control of parts of Sumatra and Java. Allied forces, mostly British Indian troops, moved in, and fighting between them and the nationalists continued until Nov. 15, 1946, when Dutch-native negotiations resulted in a draft agreement initialed at Linggadjati, near Cheribon. The agreement was formally signed by Dutch and Indonesian authorities on March 25, 1947.

This agreement contemplated the formation by Jan. 1, 1949, of a Netherlands-Indonesian Union, consisting on the one hand of the Netherlands, the Netherlands Antilles and Surinam and on the other of the United States of Indonesia, which was to be a sovereign nation composed of three equal states—the Republic of Indonesia, East Indonesia and Borneo. Differences of interpretation ensued, and the Dutch resorted to force on July 20, 1947. Both sides issued cease-fire orders on Aug. 4, 1947, in response to a call from the U. N. Security Council.

The U. N. named a Good Offices Commission under whose auspices the Dutch and the Republic signed another truce on Jan. 17, 1948, aboard the U.S.S. *Renville*. A provisional federal government for the whole area was installed on Mar. 9, 1948, but difficulties between the Dutch and the Republic continued. On Dec. 18, 1948, Dutch forces instituted "police" action against Republican areas and seized the Republican leaders. Hostilities ceased Jan. 1, 1949, following U. N. intervention. On May 7, the Dutch agreed to return the exiled Republican regime to central Java.

On Nov. 2, 1949, Dutch and Indonesian leaders agreed upon the terms of union between the Netherlands and Indonesia. Dr. Sukarno was elected President of the federation on Dec. 16 by representatives of the Indonesian states, and the first all-Indonesian Cabinet was formed with Mohammed Hatta as Premier. The transfer of sovereignty took place at Amsterdam on Dec. 27, 1949.

The principle of federalism was discarded on Aug. 4, 1950, and Indonesia became a unitary state. The attaining of independence was followed by repeated financial, economic and political crises and many short-lived, weak Cabinets; the holding of parliamentary elections was repeatedly postponed. Relations with the Netherlands were strained by a dispute over the status of Netherlands New Guinea and proposals for the termination of the union; the latter finally was dissolved Aug. 11, 1954.

GOVERNMENT AND DEFENSE. Indonesia is a republic of 10 provinces under the Constitution promulgated on Aug. 15, 195

gislative power is vested in the 215-
mber People's Representative Council,
mposed of members of the former Fed-
l and Republican Parliaments. Execu-
e power is exercised by the President
d the Premier and his Cabinet.

Military service is not compulsory. The
ny is to be stabilized at 300,000 men. The
vy (1954) had 1 destroyer, 4 corvettes,
atrol ships and many smaller craft. The
force was composed of 25 aircraft.

CIAL AND ECONOMIC CONDITIONS.
ool attendance is not compulsory. Il-
racy was officially estimated at 47%
1952. In 1952–53 there were 27,342 ele-
ntary schools with 6,129,152 pupils and
34 secondary schools with 218,863 pu-
. The two universities—Gadjah Mada at
Jakarta and the University of Indonesia
Jakarta—had 11,805 students.

The islands of Java and Madura, with
y nine per cent of the area, have more
n two-thirds of the population, and are
ong the most densely settled areas in
world (more than 800 per sq. mi.).
e natives, including about 137 races and
es, are mainly of Malayan stock, with
Javanese the most advanced.

griculture engages about 70 per cent of
adult males. Rich in a variety of crops,
islands prior to World War II produced
ut 31 per cent of the world's copra, 37
cent of its rubber, 83 per cent of its
per, and nearly all of its quinine. The
estate agriculture on Java and Suma-
is devoted mainly to export. The rest
ubsistence agriculture. Rice is the sta-
food and chief crop; production in
was 15,119,201 metric tons (paddy).
or plantation crops, with 1954 produc-
in metric tons, are rubber, 776,158;
46,900; coffee (estates only), 14,196;
hona bark, 1,770; palm oil, 168,636;
n kernels, 43,319.

thers are sugar, cacao, spices, agava
, copra and kapok. In addition to rice,
chief food crops of the Republic are
ze, cassava, sweet potatoes, peanuts
soybeans.

1951 there were an estimated 4,230,-
cattle, 2,008,000 sheep, 1,198,000 hogs,
,000 buffalo and 508,000 horses.

dustry, especially in Java, developed
dly after 1930. In addition to indus-
connected with the processing of the
natural products, there were estab-
d chemical works, textile and paper
, soap factories, breweries, shipyards,
odyear tire and rubber plant and a
ral Motors assembly plant. War dam-
was severe.

donesia is primarily an importer of
umer and capital goods and an ex-
r of mineral and plantation products.
nt trade data are as follows (in mil-
of rupiahs):

	1952	1953	1954*
Exports	10,406	9,300	9,759
Imports	10,425	8,586	7,172

* Preliminary.

Chief exports in 1954 were rubber (30%), petroleum and products (26%), tin (7%), copra (6%) and tea (5%). Leading customers were Singapore (22%), the Netherlands (19%), the U. S. (17%) and Britain (5%); leading suppliers, Japan (22%), the U. S. (14%), the Netherlands (10%) and Britain (5%).

The highway network totaled about 45,000 miles in 1953; and in that year there were about 4,200 miles of railway, of which about three-fourths were in Java and a fourth in Sumatra. According to *Lloyd's Register*, the merchant marine had 125 ships (100 tons and over) aggregating 91,085 gross tons on June 30, 1954.

Recent financial data are as follows (in millions of rupiahs):

	1952	1953	1954*
Revenue	12,240.3	13,590.5	10,970.8
Expenditure	15,024.4	14,928.4	13,561.9

* Budget estimate.

The public debt, consolidated and floating, was reported on Dec. 31, 1954, at 16,834,000,000 rupiahs, of which 6,570,000,000 rupiahs represented the floating debt.

NATURAL FEATURES AND RESOURCES; CLIMATE. A backbone of high mountain ranges with many snow-capped peaks extends throughout the main islands of the archipelago. Earthquakes are frequent, and there are many active volcanoes, 90 of them in Sumatra. Borneo is heavily forested.

Petroleum is the principal mineral product of modern Indonesia. The fields, in Sumatra, east Borneo and east Java, produced 10,775,135 metric tons (about 75,200,000 barrels) in 1954.

The tin industry attained prewar levels more rapidly than others after World War II; production in 1954 was 35,861 long tons. Other important minerals include bauxite (1954: 165,727 metric tons), coal (893,763 tons), salt, nickel and manganese. Deposits of uranium are reported.

Forests, covering much of the area except Java, yield such products as timber, rattan, bamboo, gum, wild rubber, guttapercha and quinine. Most valuable timber is teak, found mostly in east Java. Ebony, sandalwood and ironwood also are cut.

The climate throughout the group is equatorial and monsoonal, with little variation of temperature (yearly average about 80°; at Batavia, 79°) and rainfall averaging over 100 inches a year. In Sumatra and Java the hot and rainy season usually lasts from May to October; December and January are relatively cool and dry; February, March and April, hot and dry.

Iran (Kingdom)

Area: 634,413 square miles.
Population (est. 1954)*: 20,662,000 (Iranian, Kurdish, Azerbaijani).
Density per square mile: 32.6.
Ruler: Mohammed Riza Pahlavi.
Prime Minister: Hussein Ali.
Principal cities (est. 1949): Teheran, including suburbs, 1,010,000 (capital); Tabriz, 272,000 (capital, Azerbaijan); Abadan, including Khorramshahr, 201,000 (petroleum); Isfahan, 192,000 (cotton, tobacco); Meshed, 191,000 (Moslem shrine).
Monetary unit: Rial.
Languages: Iranian (Persian), Kurdish, Azerbaijani.
Religions: Moslem (Shiah), about 90%; Moslem (Sunni), about 5%; Armenian; Jewish; Nestorian; Parsi.

* U.N. estimate; no census ever taken.

HISTORY. Oil-rich Iran, roughly one-fifth the size of the United States, was called Persia before 1935. Its key location blocks the lower land gate to Asia, and also stands in the way of traditional Russian ambitions for access to the Indian Ocean. In modern times, Iran has drawn Big Power interest because of its rich oil deposits.

Iran's history is a long one of rising and falling dynasties. After periods of Assyrian, Median and Achaemenidian rule, Persia became a powerful empire under Cyrus the Great, reaching from the Indus to the Nile at its zenith in 525 B.C. It fell to Alexander in 331–30 B.C., to the Seleucidae in 312–02 B.C., and to the Parthians about 130 B.C. A native Persian regime arose about A.D. 224, was weakened fighting the Turks, and fell to the Arabs in 637. In the 12th century the Mongols took their turn ruling Persia, and in the early 18th century the Turks and Russians occupied it. In modern times, Russia, Turkey, Britain, France and most recently, the United States all have taken keen competitive interest in Iran.

An Anglo-Russian convention of 1907 divided Iran into two spheres of influence. British attempts to impose a protectorate over all of Iran were defeated in 1919. On Feb. 26, 1921, General Riza Pahlavi seized the government and was elected hereditary Shah in 1925. Subsequently he did much to modernize the country and abolished all foreign extraterritorial rights.

Increased pro-Axis activity led to Anglo-Russian occupation of Iran in August 1941 and deposition of the Shah in favor of his son, Mohammed Riza Pahlavi.

In November 1945, a Soviet-inspired autonomist movement won control of Azerbaijan, Iran's northwest province. To protect their advantage, the Russians kept troops in that area past the treaty evacuation date of March 2, 1946. The Iranians promptly protested this breach of agreement to the United Nations. The Russians evacuated their troops on May 6.

Ali Razmara became Premier June 26, 1950, and pledged to restore efficient and honest government, but he was assassinated Mar. 7, 1951. Mohammed Mossadegh took over April 29. The next day, Parliament completed action on a bill nationalizing the oil industry. The action was taken over strong British protests, but Britain evacuated the oil refineries Oct. 3, 1951. Subsequent British-Iranian negotiations failed. Loss of oil revenue placed Iran in a precarious economic position.

Mossadegh was ousted Aug. 19, 1953, in a *coup d'état* led by Fazollah Zahedi, whom the Shah had named Premier. The oil dispute was settled in Aug. 1954. Hussein Ali succeeded Zahedi as Premier on Apr. 7, 1955.

GOVERNMENT AND DEFENSE. Iran is a constitutional monarchy, and the Shah has the usual powers of the head of a parliamentary state. Executive power is exercised by a Cabinet headed by the Prime Minister, who is appointed by the Shah and is responsible to Parliament, the lower house of which (Majlis) has 136 popularly elected members and the upper house of which (Senate) has 60 members, half of whom are appointed by the Shah.

Military service is compulsory; the initial training period is 2 years. The army, modernized and reorganized by Riza Pahlavi, father of the present Shah, consists of about 130,000 men. The air force has several hundred planes, and the navy several small craft in the Persian Gulf. There is also a U. S.-trained police force of 20,000.

SOCIAL AND ECONOMIC CONDITIONS. Education has made good progress in the 20th century, supplanting the old and essentially religious system. In 1950 there were 9,900 primary and nursery schools with 762,908 pupils and 333 secondary schools with 51,039. There are universities at Teheran and Tabriz. Illiteracy is high.

Iran is predominantly agricultural. Large estates are numerous, and irrigation is common, especially on the central plateau. The principal crops are wheat (est. 1954: 2,096,000 metric tons) and barley (824,000 tons). Rice production, confined largely to the Caspian provinces, was estimated at 565,000 tons (paddy) in 1954.

Other crops include grapes, dates, apricots, tobacco, tea, cotton, sugar beets and corn. There are extensive grazing lands. Wool production in 1953 was estimated at 9,000 metric tons (clean); in 1951 there were an estimated 18,000,000 sheep.

Iran must still import many manufactured necessities, but several new factories were established by the government after 1925, including sugar plants, rice and oil mills, textile factories, a cement factory, copper smelter, glycerine factory and small arms factory. The Chalus silk mill produces 1,000,000 yards or more a year. Both sugar

l tobacco are government monopolies. e manufacture of carpets, for which Iran amous, is a valuable industry.

oreign-trade data (trade years begin- g March 21) in billions of rials:

	1951–52	1952–53	1953–54
orts	11.23	5.88	8.74
orts	7.23	5.20	17.53

he chief exports in 1952–53 were cot- (17%) and rugs (16%). Leading cus- ers were Germany (18%), other conti- tal European Payments Union countries %) and the U. S. and Canada (11%); ing suppliers, the U. S. and Canada %), Germany (15%) and other conti- tal EPU countries (14%).

otorable roads in 1949 totaled some 17,- miles, about one-fifth asphalted. Rail- mileage was 1,748 (1949).

1953 there were about 44,000 miles of s and about 1,600 miles of railway, more under construction.

ne budget for 1954–55 forecast revenue 0,848,000,000 rials and expenditure of 42,000,000 rials. The internal debt in 1951 was 7,360,000,000 rials.

URAL FEATURES AND RESOURCES; MATE. Iran is, in general, a plateau aging 4,000 feet elevation. In addition, e are maritime lowlands along the an Gulf and the Caspian Sea. The rz Mountains in the north rise to 3 feet at Mt. Demavend. From north- to southeast, the country is crossed by sert 800 miles long.

nsiderable mineral wealth exists, but oil is exploited commercially. The ipal field, near Shushar in the south- was worked until 1951 by the Anglo- an Oil Company. The latter's conces- began in 1901 and was to run until but its properties were nationalized ne Iranian government in April, 1951. uction in 1950 was 31,750,000 long (about 240,000,000 barrels). The re- y at Abadan processed 24,855,171 tons. uction under Iranian control was neg- e. Under an agreement signed Sept. 954, Iran's oil is being produced, re- and marketed by a consortium of 8 rn oil companies, with 50% of the s going to Iran. The consortium be- production Oct. 29, 1954, and during emainder of the year produced 1,400,- ons.

osits of uranium have been reported. main forest belt on the northern z slope supplies railroad ties, char- nd firewood. Gums are the most valu- forest product. Fisheries are worked e Persian Gulf and the Caspian Sea. central plateau is hot in summer ery cold in winter, but the Caspian as a sub-tropical climate. Mean tem- ures vary at Teheran from 35° in Jan- o 85° in July (yearly average 62°); at Bushire, on the Persian Gulf, from 58° in January to 90° in July and August (average 75°). Rainfall is light and vari- able (4 to 20 inches or more annually at Teheran).

Iraq (Kingdom)

Area: 116,600 square miles.*
Population (est. 1950): 5,100,000 (Arab, 75%; Kurdish, 15%; Iranian, 3.75%; others, 6.25%).
Density per square mile: 43.7.
Ruler: King Faisal II.
Prime Minister: Nuri es-Said.
Principal cities (census 1947, cities proper): Baghdad, 364,049 (capital); Mosul, 203,273 (oil); Karbala, 122,719 (religious center); Basra, 94,000 (chief port).
Monetary unit: Dinar.
Languages: Arabic, Kurdish.
Religions: Moslem (Shiah), 53%; Moslem (Sunni), 35%; Christian, 2.8%; Jewish, 2.5%; others, 6.7%.

* Excluding southern and western desert areas.

HISTORY. Iraq, a triangle of mountains, desert and fertile river valley less than half the size of Texas, is bounded east by Iran, north by Turkey, west by Syria and Jordan, and south by Saudi Arabia. From earliest times it has been known as Mesopotamia—the land between the rivers—for it embraces a large part of the alluvial plains of the Tigris and Euphrates.

An advanced civilization existed in Mesopotamia by 4000 B.C. Sometime after 2000 B.C. it became the center of the ancient Babylonian and Assyrian empires. It was conquered by Cyrus the Great of Persia in 538 B.C., and by Alexander in 331 B.C. After an Arab conquest in A.D. 637–40, Baghdad became capital of the ruling caliphate. The country was cruelly pillaged by the Mongols in 1258, and during the 16th, 17th and 18th centuries was the object of repeated Turkish-Persian competition.

Nominal Turkish suzerainty imposed in 1638 was replaced by direct Turkish rule in 1831. In World War I an Anglo-Indian force occupied most of the country, and Britain was given a mandate over the area in 1920. The British recognized Iraq as a kingdom in 1922 and terminated the mandate in 1932, when Iraq was admitted to the League of Nations. In World War II, Iraq generally adhered to its 1930 treaty of alliance with Britain, but in 1941 British troops were compelled to put down a pro-Axis revolt led by Prime Minister Rashid Ali. Iraq became a charter member of the Arab League in March 1945, and Iraqi troops took part in the Arab invasion of Palestine in 1948. The 1930 treaty of alliance with Britain was terminated in April 1955 and replaced by a defense cooperation agreement.

King Faisal II, born on May 2, 1935, succeeded his father, Ghazi I, who was killed in an automobile accident on April 4, 1939.

The King's uncle, Abdul-Ilah, is heir apparent.

GOVERNMENT AND DEFENSE. Under the 1924–25 Constitution, Iraq is a hereditary monarchy with a two-house Parliament. The Senate is named by the King for a term of eight years; the 138-member Chamber of Deputies is elected popularly for four years. Executive power is vested in a Council of Ministers, headed by the Prime Minister, who is appointed by the King.

Military service is compulsory, with an initial training period of 1½ to 2 years. The British-trained police number about 21,000.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is free and nominally compulsory. Secondary education is neither free nor compulsory. There are no universities. In 1951–52 there were 1,307 elementary schools with 216,885 pupils and 162 intermediate and secondary schools with 33,768 students. Ten institutions of higher learning had a combined enrollment of 5,000 students.

The chief economic activity is agriculture, dependent upon irrigation and confined to the valleys of the Tigris and Euphrates. Iraq supplies about 80 per cent of the world's dates (1954: 386,000 short tons). Chief among the cereal products of Iraq are barley (1954: 1,240,000 metric tons), wheat (1,030,000 tons), rice, sorghum, maize and millet. Many fruits and some tobacco and cotton are grown. Grazing is the principal occupation of the many nomadic and seminomadic tribes. Livestock estimates included (1953) 8,000,000 sheep, 800,000 cattle, (1949) 170,000 buffalo, 2,000,000 goats and 291,000 camels. Wool production in 1953 was about 9,700 metric tons (clean basis).

Industry is still embryonic. Of some 100 firms, the most important are those making brick, tile, woolen textiles, vegetable oils, soap, glass and cigarettes.

Recent foreign-trade data are as follows (in millions of dinars):

	1952	1953	1954
Exports*	102.9	145.4	155.6
Imports	61.8	68.7	74.1

* Adjusted to include estimated value of crude petroleum exports.

Chief exports in 1954 were petroleum (88%), barley (6%) and dates (2%). Leading suppliers in 1953 were Britain (30%), continental EPU countries (22%) and the U. S. and Canada (15%); leading customers, France (30%), other continental EPU countries (27%) and Britain (29%).

The only port for seagoing vessels is that of Basra, located on the Shatt al-'Arab River near the head of the Persian Gulf. There are about 4,550 miles of roads suitable for vehicular traffic. Iraq State Railways, the only rail line of the country, operates three lines totaling 1,055 miles of main line.

NATURAL FEATURES AND RESOURCES: CLIMATE. Iraq has arid desertland west of the Euphrates, a broad central valley between the Euphrates and Tigris, and mountains in the northeast. The fertile lower valley is formed by the delta of the two rivers, which join about 120 miles from the head of the Persian Gulf. The gulf coast line is 26 miles.

Oil production is concentrated at the Baba Gurgur fields near Kirkuk, which are operated on behalf of an international group by the British-managed Iraq Petroleum Company (production 1954: 23,731,108 long tons). Associated companies operate fields at Zubair and Rumaila near Basra (1954: 4,592,196 tons) and at Ain Zalah (1954: 1,283,443 tons).

Oil is piped to Tripoli in Lebanon, Baniyas in Syria, Fao on the Persian Gulf and Haifa in Israel (suspended in 1948). The Khanaqin Oil Company, an Anglo-Iranian subsidiary, operates another field which produces only for local consumption (1953: 520,000 long tons). The Iraqi government received $160,000,000 in oil revenues in 1954.

Iraq's climate, generally, runs to great extremes—long hot summers and short cold winters. The area on the Persian Gulf is one of the hottest places in the world. Average temperature at Baghdad is 49° in January and 92° in July and August. Rainfall there is only about 7 inches annually.

Ireland (Republic)

Area: 26,601 square miles (not including larger water bodies).

Population (est. 1954): 2,933,000 (almost entirely Irish).

Density per square mile: 110.3.

President: Séan T. O'Kelly.

Prime Minister: John A. Costello.

Principal cities (census 1951): Dublin (Baile Atha Cliath), 522,183 (capital); Cork, 74,567 (seaport); Limerick (Luimneach), 50,820 (seaport); Dun Laoghaire (Kingstown), 47,920 (seaport).

Monetary unit: Irish pound.

Languages: Gaelic, English.

Religions (census 1946): Roman Catholic, 94.3%; Protestant Episcopal, 4.2%; Presbyterian, .8%; others, .7%.

HISTORY. About the beginning of the Christian Era, Ireland was divided into five kingdoms, each with its own ruler, but each subject to the overlord of all Ireland who dwelt at Tara. St. Patrick introduced Christianity in A.D. 432.

Norse depredations along the coast, starting in 795, ended in 1014 with Norse defeat at the Battle of Clontarf by forces under Brian. In the middle of the 12th century, the Pope gave all Ireland to

glish Crown as a papal fief. In 1171 ıry II of England was acknowledged rd of Ireland," but native sectional rule tinued for centuries, and English con- over the whole island was not reason- y absolute until the 17th century. By Act of Union (1800), England and and became the "United Kingdom of at Britain and Ireland."

he great potato famine of 1846–48 took ıy lives and drove millions to emigrate America.

everal home-rule bills were introduced the English Parliament in the 19th tury, but failed of passage. One was lly approved in 1914, but enforcement suspended by the outbreak of World I. During the war, agitation for free- was carried on by the nationalist y called Sinn Féin (Ourselves). In 1916 British quickly suppressed the famous ér Rebellion and executed its leaders. ter the 1918 elections, seventy-three he Sinn Féiners elected to the English iament met in Dublin, proclaimed nselves an Irish Parliament, and passed clararation of independence. The result war between Irish nationalists and sh troops from January 1919 to May . A treaty ratified in December 1921 Ireland political status equal to that Canada. Six Ulster counties, largely estant, formed a separate government orthern Ireland, closely bound to Eng- ; the other twenty-six became the Free State. Republican extremists, ed by Éamon de Valera, refused for al years to recognize the treaty.

lliam Cosgrave, leader of the Sinn s right wing, was President from 1922 932. In the latter year, De Valera's , Fianna Fáil, won control of the rnment. Under De Valera's leadership w Constitution was adopted in 1937 ng the nation, Ireland, in effect, a blic.

Douglas Hyde, elected without op- ion as the first President in 1938, succeeded in 1945 by Séan T. O'Kelly, Fianna Fáil nominee (re-elected in . The country maintained strict neu- y during World War II.

Valera's long tenure as Prime Min- came to an end in Feb. 1948, when Fianna Fáil lost its absolute majority ıe parliamentary elections. John A. llo, a Fine Gael moderate, took office head of a six-party coalition Cabinet b. 18, 1948. He yielded to De Valera ne 18, 1951, after new elections but took office on June 2, 1954.

nation severed its last ties with the h Crown at midnight April 17, 1949, fficially proclaimed itself the Repub- Ireland on the next day—Easter ay.

GOVERNMENT AND DEFENSE. Ireland is a sovereign, independent republic. The President, directly elected for seven years, names the Prime Minister on the nomination of the Chamber of Deputies. Parliament (Oireachtas) has two houses. The Chamber of Deputies (Dáil Eireann) has 147 members elected by proportional representation for a five-year term. The Senate (Seanad Eireann) has 60 members, of whom 11 are named by the Prime Minister, 6 by the universities, and 43 from vocational panels. Its powers, however, are limited.

Party representation in the Dáil Eireann after elections of May 18, 1954, was as follows: Fianna Fáil, 65; Fine Gael, 50; Labour, 19; Farmers, 5; Clann Na Poblachta, 3; independents, 5.

Military service is voluntary. The army has a permanent authorized strength of 12,500. In 1938 Britain gave up its last defense posts in the republic, including those located at Cobh, Berehaven and Lough Swilly.

SOCIAL AND ECONOMIC CONDITIONS. Elementary education is free and is provided in state schools; secondary education is under private control, notably the religious orders. Technical and agricultural education is under local control, aided by state subsidies. Illiteracy is negligible. The 4,876 elementary schools had 460,845 pupils in 1951–52; 434 secondary schools had 50,179 pupils. The University of Dublin (Trinity College), founded in 1591, had an enrollment of 2,171 in 1952–53, and the National University of Ireland (constituent colleges at Cork, Galway, Dublin and Maynooth) had 5,813.

The majority of the people are English-speaking, although the government has attempted to promote the traditional Gaelic language, which is an essential part of the curriculum for all state schools.

Ireland is predominantly an agricultural country, with about 70 per cent of the total land area (17,000,000 acres) devoted to crops and pasture. The pastoral industry is the basis of the nation's economy, but recent years have brought a greater diversity in agriculture, marked by large increases in sugar beet and wheat production. Principal crops in 1954 were wheat, 489,000 long tons; rye, 3,000 tons; oats, 475,000 tons; potatoes, 2,248,000 tons; sugar beets, 674,000 tons. Other staple crops are flax, turnips, cabbage and hay. Livestock in June 1954 included 4,504,026 cattle, 3,112,842 sheep and 958,321 hogs. Wool output in 1953 was 15,200,200 lbs. (greasy); butter output, 1,066,325 cwt.

Leading manufactures are ordinarily beverages, tobacco, wood, paper, clothing, textiles and metals. The hydroelectric plant erected on the Shannon River in

County Limerick provides cheap electricity for homes and factories.

Trade statistics are as follows (in millions of Irish pounds):

	1952	1953	1954
Exports	101.6	114.1	115.1
Imports	172.3	182.7	179.9

The United Kingdom (including Northern Ireland) was the leading customer in 1954 (89%). The United Kingdom was also the chief supplier (56%), followed by the U. S. (7%) and western Germany (4%). Major exports of Ireland in 1954 were cattle (29%), beef and veal (10%), chocolate, crumb and confectionary (5%) and beer (4%). Major imports were textiles, machinery, vehicles, coal, wheat, chemicals and iron and steel and manufactures.

Railway mileage is about 2,400. The highway system totaled 48,800 miles in 1954. Shannon is an important international airport. There are 670 miles of canals and navigable waterways.

Recent finance data are as follows (in millions of Irish pounds):

	1953–54	1954–55*	1955–56*
Revenue	102.8	106.7	110.5
Expenditure	102.5	108.4	110.5

* Budget estimate.

The public debt on March 31, 1955, was £305,000,000; state assets amounted to £181,000,000.

NATURAL FEATURES AND RESOURCES; CLIMATE. Occupying the entire island except for the six northern counties of Ulster, Ireland resembles a basin—a central plain rimmed with mountains, except in the Dublin region. The mountains are low, with the highest peak, Carrantuohill in Kerry County, rising 3,415 feet.

The principal river is the Shannon, which begins in the north central area, flows south and southwest for about 240 miles and empties into the Atlantic. About 20 per cent of the country is covered by bogs. Among the many lakes are the famous Lakes of Killarney in the southwest county of Kerry.

In 1954, Ireland mined 200,400 metric tons of coal, some gypsum, and considerable peat from its bogs, but otherwise the mineral resources are negligible, as are those of the forests. The fishing industry employs about 10,000 men. The 1954 wetfish catch, including mackerel, herring, whiting, cod and plaice, totaled 225,996 cwt. valued at £511,230.

A moist and mild climate, with annual rainfall running between thirty and forty inches fairly evenly distributed throughout the year, is influenced by the Gulf Stream, which makes the winters warmer than in other places in the same latitude. The mean temperature at Dublin is 41.7° in January and 60.5° in July.

Israel (Republic)

Area: 8,050 square miles.
Population (est. Dec. 31, 1954): 1,717,814 (90% Jewish).
Density per square mile: 213.4.
President: Itzhak Ben-Zvi.
Premier: Moshe Sharett.
Principal cities (est. Dec. 1954): Jaffa-Tel Aviv, 358,500 (industrial center); Haifa, 154,500 (chief port); Jerusalem (Israeli), 144,000 (capital).
Monetary unit: Israeli pound (£I).

HISTORY. The history of Palestine, cradle of two of the great religions of the world and homeland of the modern state of Israel, is mostly a chronicle of invasion, conquest and confusing divisions. To the ancient Hebrews it was known as the "Land of Canaan"; the name Palestine is derived from that part of the country inhabited by the Philistines of Biblical times. About 1000 B.C. the Hebrews succeeded in establishing a single monarchy, which later split up into two kingdoms—Judah and Israel. The country was subsequently invaded and overcome by many peoples, including the Assyrians, Babylonians, Egyptians, Persians, Macedonians, Romans and Byzantines. In A.D. 634–36, Palestine was wrested from the Byzantine Empire by the Arabs. Frankish Crusaders captured Jerusalem in 1099 and set up a feudal kingdom which endured until the defeat of the Franks by Saladin (1187) and the restoration of Moslem rule. In 1516 suzerainty over the area was transferred from the Mamelukes of Egypt to the Turks. It remained part of the Ottoman Empire until World War I, when British forces under General Allenby defeated the Turks and captured Jerusalem (Dec. 9, 1917). The League of Nations mandate awarded to Great Britain was put in force on Sept. 29, 1923.

Meanwhile, a movement had been founded in 1897 by Theodor Herzl to create a Jewish homeland in Palestine, and a considerable number of Jewish immigrants had entered the country prior to World War I. On Nov. 2, 1917, official British recognition was given both to the growing Arab nationalist movement and to the Zionist aspirations by the issuance of the so-called Balfour Declaration.

The declaration was attacked by the Arabs. Throughout the period between the two World Wars, outbreaks of violence and open revolt occurred. Jewish immigration continued, especially after the rise of Hitler. A British royal commission report approved by the British government July 1937, recommended the partition of Palestine into an Arab and a Jewish state separated by a mandated area in the vicinity of Jerusalem and at Nazareth. The Arabs opposed the proposal, advocating instead the establishment of an independent Palestine with full minority rights for

. In May 1939, the British govern- issued a White Paper declaring the olishment of a Jewish state contrary ritish obligations to the Arabs and ising, after a transitory period of ten , the establishment of an independ- Palestine in which Arabs and Jews d share authority in government. ng the next five years, 75,000 Jews to be allowed to enter Palestine. e proposals did not satisfy either , and the League Mandates Commis- questioned their validity, but the out- of World War II overshadowed all issues.

b-Jewish co-operation in the war ef- ntroduced a period of order, but the f European hostilities in 1945 brought ewal of friction, and the formation of rab League in that year served to rcate lines of opposition.

empts to bring Jewish immigrants Palestine illegally were intensified fter, and terrorism grew apace. eport of a special U. N. investigating ittee recommended to the General bly in Sept. 1947 that Palestine be oned into Arab and Jewish states would be independent politically nited economically. Jerusalem would der international trusteeship.

ptance of this majority report by the General Assembly on Nov. 29, 1947 d off new outbreaks of violence, British troops had difficulty in con- g. The decision was generally ac- by the Jews, but members of the League announced their determina- resist partition by force, if neces-

ination of the British mandate May 8, and withdrawal of British forces t new violence. An independent f Israel was immediately proclaimed Jewish National Council, and Arab converged on Palestine from the north and east, spearheaded by the British-trained Arab Legion of King h of Jordan. Within a few hours ewish hostilities were in full swing. e 11, however, there went into effect week truce supervised by Count ernadotte, Swedish U. N. mediator stine. Fighting resumed on July 9, aeli forces gaining on all fronts ex- Jerusalem, part of which had been y Jordani troops prior to the truce. 17 a second truce was effected on the U. N. Security Council. Berna- as assassinated on Sept. 17 by un- d Jewish terrorists and his duties ken over by Dr. Ralph Bunche of ed States.

ng broke out during the truce, t Jerusalem but also in western and the Negeb. A final cease-fire ct on Jan. 7, 1949, and an armis- tice agreement was concluded with Egypt on Feb. 24 and with Jordan on April 3. During the hostilities Israel lost none of the territory allotted to it under the partition plan and increased that territory by about 50% by gaining western Galilee, a broad corridor to Jerusalem through central Palestine and part of modern Jerusalem. In April 1950, Jordan incorporated eastern and central Palestine, including the Old City of Jerusalem.

Israel's governmental structure took shape rapidly. Elections were held in Jan. 1949 for a constituent assembly, which adopted a Constitution on Feb. 14; the provisional leaders, Chaim Weizmann and David Ben-Gurion were confirmed as President and Premier, respectively. Recognized by most non-Arab countries, the new nation was admitted to the U. N. on May 11, 1949, but Israeli-Arab relations remained hostile, with frequent border incidents.

Despite many Cabinet crises, Ben-Gurion's government met with increasing success the problems arising out of an unfavorable trade balance, large numbers of immigrants and the urgent need for foreign capital investment and additional industries. In 1951 the floating of a $500,000,000 bond issue in the U. S. was begun.

Dr. Weizmann died Nov. 9, 1952, and Itzhak Ben-Zvi was elected to succeed him as President on Dec. 8. Ben-Gurion resigned for reasons of health on Dec. 7, 1953; a new coalition government was formed by Moshe Sharett on Jan. 4, 1954.

GOVERNMENT. The declaration of independence, issued May 14, 1948, by the Jewish National Council (Vaad Leumi), stated that the new nation would be "based on the precepts of liberty, justice and peace taught by the Hebrew prophets." The Constitution adopted by the constituent assembly in 1949, provides a republican form of government headed by a President elected for a 5-year term by the Chamber of Deputies. Legislative power is vested in the Chamber of Deputies, the members of which are elected by the vote of all citizens who have reached the age of 21. The government is administered by the Cabinet, which is headed by the Premier and is responsible to the Chamber of Deputies.

Elections held July 26, 1955, divided the 120 seats in the Chamber of Deputies (Knesset) as follows: Mapai (Labor), 40; Herut, 15; General Zionist, (rightist), 13; National Religion Front, 11; Ahdut Avoda (Marxist), 10; Mapan, 9; Communists, 6; others, 16.

The Constitution characterizes Israel as the national home of the Jewish people and directs the admission of every Jew who desires to settle within its borders, subject to control of the Chamber of Deputies. Between May 1948 and Dec. 31, 1954, 741,200 Jewish immigrants entered Israel; the peak year was 1949 (239,141),

Military service is compulsory. The peacetime army numbered about 30,000 on active duty in 1954. The navy on Dec. 31, 1954, had 7 frigates and escort vessels and several other smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. Education is under the supervision of the Ministry of Education. Kindergarten and elementary education is free; most secondary schools are semiprivate. In 1952–53 there were 945 elementary schools with 200,337 pupils, 68 secondary schools with 16,848 pupils and 201 Arab schools with 28,176 pupils. The Hebrew university in Jerusalem had 2,820 students in 1953–54.

Agriculture is the chief economic activity. The maritime plain, the plain of Esdraelon and the northern Jordan valley are the principal agricultural areas. Citrus growing, confined largely to the maritime plain, normally furnishes the major export crop. Production (1953–54) was 470,500 metric tons. Others include olives, rice, fruits and vegetables, figs, tobacco, wheat, barley, corn, sesame and potatoes. There are many collective rural settlements.

Industry is developing rapidly, especially the food-processing, textile, metalworking and chemical groups. Diamond cutting, although dependent on rough diamond imports, is of major importance; and there are oil refineries and storage tanks at Haifa, a terminus of the pipeline from the Iraqi oil fields (suspended since 1948).

Recent foreign-trade statistics are as follows (in millions of Israeli pounds):

	1952*	1953*	1954*
Exports	11.4	20.5	30.4
Imports	89.7	100.4	103.5

* Calculated at the rate of £I 1 = U.S. $2.80.

Chief exports in 1954 were citrus fruits (39%) and polished diamonds (18%). Leading customers were Britain (23%), the U. S. (17%) and Turkey (15%); leading suppliers, the U. S. (28%), western Germany (18%) and Britain (10%). Leading imports were iron and steel and manufactures (11%), grain and flour (10%) and machinery (9%).

Internal communication is provided by 330 miles of railway (in operation, 1955) and a good highway network totaling 1,612 miles (1953). The excellent airport at Lydda, near Tel Aviv, is served by major international lines and El Al, Israel's international line, which flew 2,654,375 miles and carried 29,098 passengers in 1954. The merchant marine had 29 vessels (100 tons and over) aggregating 108,233 gross tons on Dec. 31, 1954.

Israel has been heavily dependent on international loans. The budget (ordinary and development) for 1954–55 was initially placed at £I 571,000,000 (1953–54: £I 389,000,000). The foreign debt was the equivalent of U. S. $406,000,000 on Dec. 31, 1953.

NATURAL FEATURES AND RESOURCES: CLIMATE. Northern Israel is largely plateau traversed from north to south by mountains and broken by great depressions, also running from north to south.

The maritime plain of Israel is remarkably fertile, but the southern Negeb region, which comprises almost half the total area, is largely a wide desert steppe area. The Jordan, the only important river, rises in Syria and flows along the Jordan border through the Hule marsh and lake and the Sea of Tiberias (Galilee) into Jordani Palestine and thence into the Dead Sea, 1,290 feet below sea level.

Mineral resources are limited. They include gypsum, sulfur, limestone, and rock salt, together with potash and bromine from the Dead Sea.

Summers are hot and dry, with occasional maximum temperature of 100°. The mean annual temperature at Jerusalem is 62.8°. Rainfall occurs chiefly in the autumn and spring; the mean annual average is 28 inches along the coast and 22 inches in Jerusalem.

Italy (Republic)

(Repubblica Italiana)

Area: 116,408 square miles.

Population (est. 1954): 47,665,000 (predominantly Italian).

Density per square mile: 409.5.

President: Giovanni Gronchi.

Premier: Antonio Segni.

Principal cities (census 1951): Rome, 1,606,739 (capital); Milan, 1,264,402 (leading financial, industrial center); Naples, 1,003,815 (seaport); Turin, 711,492 (auto works); Genoa, 678,200 (seaport); Palermo, 482,594 (Sicilian seaport).

Monetary unit: Lira.

Religions: Roman Catholic, 99.6%; others (Protestant, Orthodox, Jewish), .4%.

HISTORY. Modern Italy did not exist as a unified country until 1870. Until A.D. 476, when the German Odoacer became head of the Roman Empire in the west, the history of Italy was largely the history of Rome. From A.D. 800 on, the Holy Roman Emperors, the Popes, Normans, Lombards and Saracens all vied for control over various segments of the Italian peninsula. Numerous city states, such as Venice and Genoa, and many small principalities flourished in the late Middle Ages.

In 1713, after the War of the Spanish Succession, Milan, Naples and Sardinia were handed over to Austria, but the Hapsburg influence on the peninsula was interrupted for a short time after 1800 when Italy was unified by Napoleon, who crowned himself King of Italy on May 26, 1805. After the Congress of Vienna in 1815, Austria continued to be the dominant power in Italy.

e movement for national unity began e middle 19th century, staged by the ng Italy" group headed by Giuseppe ni. In 1858 Count Cavour, Prime ter under King Victor Emmanuel II rdinia, secured the aid of Napoleon f France in unifying Italy. After h and Sardinian forces had defeated ustrians in 1859, Lombardy was an- to Sardinia, and by the time the talian Parliament opened at Turin in 1861, all Italy was represented ex- Venetia, held by Austria, and Rome, was the territory of the Pope. On ary 18, 1861, Victor Emmanuel II was imed King of united Italy.

1866 Italy sided with Prussia against ia and received Venetia; Rome was in 1870. In 1882 the young nation ed into the Triple Alliance with Aus- nd Germany. After war with Turkey 1–12, the Italians were awarded Trip- North Africa and the Dodecanese ls in the Aegean Sea.

y denounced the Triple Alliance on 3, 1915, and declared war on Austria ay 24. By the treaty of St. Germain, pt. 10, 1919, the south Tirol (Upper) and the Istrian peninsula were ed to Italy.

the years immediately following I War I, Italy was a virtual battle- d between the Socialists and Benito olini's new Fascist movement. The government was powerless to main- order as the two sides fought for . Finally, on Oct. 30, 1922, the Fas- staged their "March on Rome" and over the government. Mussolini was d Premier by King Victor Emmanuel Duce and his Fascist Grand Council made Italy into a corporate state, himself as dictator.

1935–36 Italy successfully invaded, ered and annexed Ethiopia, despite omplaints of the League of Nations conomic sanctions.

November 6, 1937, Italy joined the an-Japanese anti-Comintern pact and cember 11 withdrew from the League tions. The Rome-Berlin Axis was con- d into a full military alliance on May 939. Meanwhile, Italian troops had Albania in April, 1939.

June 10, 1940, Mussolini suddenly nced Italy's declaration of war st France (already in the throes of) and Britain. Italian troops were to advance only a few miles into e before the armistice was concluded ne 24, under which Italy annexed a strip of France. On October 28, 1940, n forces invaded Greece from Al- , but were driven back by the Greeks, eld a third of Albania by the time ermans launched their Balkan cam- on April 6, 1941. Italy subsequently occupied parts of Yugoslavia and Greece. Following the German capitulation in North Africa and the fall of Sicily, Mussolini was ousted on July 25, 1943, and Marshal Pietro Badoglio formed a new government. On September 3, 1943, the date of the invasion of the Italian mainland by Allied forces, a military armistice was signed between General Eisenhower and Badoglio.

On June 9, 1944, five days after the Allies entered Rome, Badoglio was succeeded as Premier by Ivanoe Bonomi, a Socialist, who formed a coalition Cabinet. The government was recognized by the Allies as the *de facto* government of Italy on October 25, but only as a cobelligerent, not as an ally.

Upon the collapse of German resistance in the north, Mussolini was tracked down and put to death by partisan forces on April 28, 1945. On December 10, Alcide de Gasperi, a Christian Democrat, took over from Ferruccio Parri, who had succeeded Bonomi as Premier in June.

On June 2, 1946, the Italian people voted in favor of a republic, and King Humbert II, who had succeeded his father on May 9, went into exile.

The new Constitution drafted by the constituent assembly took effect on Jan. 1, 1948. Following the Communist defeat in the election of April 1948, De Gasperi formed another coalition Cabinet from which the Communist and left-wing Socialist bloc was again excluded. Luigi Einaudi, veteran Liberal leader, was elected first President of the Republic on May 11. In April 1949, Italy adhered to the North Atlantic pact.

De Gasperi's centrist coalition lost ground to both leftist and rightist groups in parliamentary elections held June 7–8, 1953. He gave way on Aug. 17 to Giuseppe Pella, who formed an all Christian Democrat Cabinet. Pella was succeeded on Feb. 10, 1954, by Mario Scelba at the head of a coalition Cabinet. Another coalition Cabinet headed by Christian Democrat Antonio Segni was sworn in July 6, 1955. Meanwhile, on April 29, Giovanni Gronchi, a liberal Christian Democrat, had been elected to succeed Luigi Einaudi as President.

GOVERNMENT. Under the 1947 Constitution Italy is a "democratic republic founded on labor." The President is elected for seven years by Parliament in joint session with regional delegates. The Cabinet, headed by the Premier and nominated by the President, must enjoy the confidence of Parliament, which is composed of the Chamber of Deputies, popularly elected for a five-year term, and the Senate. All citizens are duty-bound to vote.

The Chamber of Deputies elected on June 7–8, 1953, had 590 members, of whom

261 were Christian Democrat, 143 Communist, 75 leftwing Socialist, 40 monarchist, 29 Social Movement (neo-Fascist) and 42 members of other parties. The Senate has 242 members.

PEACE TREATY OF 1947. The peace treaty which took effect Sept. 15, 1947, required Italian renunciation of all claims in Ethiopia and Greece, the cession of the Dodecanese to Greece, and of five small Alpine areas to France. In addition, the major part of the Istrian peninsula, including Fiume and Pola, went to Yugoslavia. The Free Territory of Trieste was carved out of the area to the west of the new Yugoslav frontier.

Italy was to pay reparations of $100,000,000 in kind over a seven-year period to the Soviet Union, $125,000,000 to Yugoslavia, $105,000,000 to Greece, $25,000,000 to Ethiopia and $5,000,000 to Albania; also to make two-thirds restitution for wartime damage to Allied property in Italy.

Zone A of Trieste (90 sq. mi.), including the city of Trieste, was transferred to Italy in Oct. 1954 and the remainder to Yugoslavia.

DEFENSE. The 1947 treaty required Italy to reduce the strength of her army to 250,000 men (including *carabinieri*), the navy to 25,000 (including naval air arm) and the air force to 25,000 (with 350 planes). The fleet was reduced to 2 battleships, 4 cruisers, 20 destroyers and large torpedo boats, plus smaller craft. Most of the defense restrictions were lifted on Dec. 29, 1951, over the objections of the U.S.S.R. The navy in Dec. 1954 had 2 battleships, 3 cruisers, 5 destroyers, 35 frigates and escort vessels, 5 submarines and many other smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Elementary education is free and compulsory from 6 to 14. Elementary schools numbered 39,188 in 1949–50, with 4,815,239 pupils. The 3,420 government secondary schools had 786,196. In 1950–51, 27 universities and institutions of higher learning had 155,170 students.

Religion. Although the country is predominantly Roman Catholic, religious freedom is permitted. Catholic religious teaching is given in all elementary and intermediate schools. Relations with the Church are regulated by the treaty with the Holy See of Feb. 11, 1929, which established the temporal power of the Pope over Vatican City.

Agriculture. Agriculture, the most important branch of Italy's economy, engages more than a third of the population. It is extremely diversified; differences of altitude, soil and climate allow the production of all European crops from rye to rice, from apples to oranges, and from hemp to cotton. Approximately 41,275,000 acres are cultivated. Italy ranks next to France in wine production (average 1949–53: 1,106,600,000 U. S. gal.; 1953: 1,267,200,000 gal.) and next to Spain in olive oil production.

Crop data (in millions of metric tons):

	1952	1953	1954*
Wheat	7,876	9,052	7,7
Rye	127	130	1
Barley	267	313	2
Oats	508	602	5
Sugar beets	5,732	6,102	6,5
Olive oil	183	344	2

* Provisional.

Livestock and dairy farming are important in Italy. Of the 50-odd varieties of Italian cheese, the best known are the hard parmesan and pecorino (the latter made from ewe's milk) and the soft stracchino and gorgonzola. Cheese production in 1953 totaled 292,000 metric tons. In 1953 Italy had 8,989,000 cattle, 9,891,000 sheep and 4,365,000 hogs. Wool production (1953) totaled 9,000 metric tons (clean basis).

Industry. Industrial production is centered in the north. The nature of the fascist corporate state had a tendency to foster industrial concentration prior to World War II. The textile industry is the largest and most important and supplies the home market as well as furnishing a large proportion of Italy's exports. The metal industries are handicapped by lack of coal, which must be imported in large quantities, and by insufficient iron ore reserves. The chemical, clothing and food industries are also important. Italy is a member of the European Coal and Steel Community.

Production in 1954 included cotton yarn 169,200 metric tons; woven cotton fabrics 115,080 tons; rayon yarn, 63,240 tons; iron and ferroalloys, 2,345,000 tons; steel 4,212,000 tons; cement, 8,760,000 tons; automobiles, 180,700; trucks, 36,200.

Trade. Statistics of Italy's foreign trade in billions of lire, are as follows:

	1952	1953	1954
Exports	867	942	1
Imports	1,460	1,513	1

Italy's leading customers by value in 1954 were western Germany (11%), U. S. (8%), Britain (8%) and Switzerland (7%). Principal suppliers were western Germany (13%), the U. S. (12%), Britain (7%) and France (7%). Leading exports were machinery and vehicles, fruits and vegetables, synthetic fibers and manufactures and cotton and manufactures. Leading imports included cotton, coal and wool, grain and petroleum and products.

Communications. According to *Lloyd's Register*, the merchant marine had 1,000 ships (100 tons and over) aggregating 798,800 gross tons on June 30, 1954. On April 1, 1955, 56 vessels of 235,402 gross tons were under construction in Italian

s. There are more than 150 seaports, hich the principal are Genoa, Venice, es, Leghorn and Trieste. Coastwise c is particularly important because fficult land communications. Railways to traffic (Dec. 31, 1952) totaled 13,- miles. Highways totaled 105,600 miles.

nce. Data (in billions of lire):

	1952–53	1953–54	1954–55*
nue	1,782.4	1,881.2	1,971.0
nditure	2,529.3	2,105.5	2,367.0

udget estimate.

e total internal debt was 4,281,538,- 00 lire on March 31, 1955.

URAL FEATURES AND RESOURCES; MATE. Approximately 600 of boot- ed Italy's 708 miles of length are in long peninsula that projects into the terranean from the fertile basin of Po River. The Apennines, branching rom the Alps between Nice and Genoa, the peninsula's backbone, and rise maximum height of 9,560 feet at the Sasso d'Italia (Corno). The Alps are 's northern boundary.

veral islands form part of Italy. Sicily, square miles, lies off the toe of the across the Strait of Messina, with a and rock-bound northern coast and ler slopes to the sea in the west south. Mt. Etna, an active volcano, to 10,741 feet, and most of Sicily is than 500 feet in elevation. Sixty-two southwest of Sicily lies Pantelleria, quare miles, and south of that are pedusa and Linosa. Sardinia, 9,301 re miles, just south of Corsica and t 125 miles west of the nearest Italian land, is largely mountainous, stony unproductive.

ly has many northern lakes, lying be- the snow-covered peaks of the Alps. largest are Garda (143 sq. mi.), Mag- (83 sq. mi.) and Como (55 sq. mi.). Po, the principal river, rises in the on Italy's western border and crosses Lombard plain to the Adriatic.

ral Resources. Italy is ordinarily world's largest producer of mercury; also an important producer of sulfur. 953, 1,769 metric tons of mercury and 00 tons of sulfur were produced. The n lacks, however, the staple minerals al, oil and iron, and is forced to im- them. Production of coal and lignite 954 was 1,712,400 metric tons; iron 1,093,200 tons; petroleum, 534,000 bar- Building stone, particularly marble, is iful. In the south Tirol and the cen- Apennines, abundant hydroelectric r resources and deposits of natural gas eing increasingly exploited. In 1954 generated 35,400,000,000 kwh. of elec- y, mostly by hydroelectric plants.

ts. Less than 20 per cent of Italy's is forested. Principal products are soft and hard timber, charcoal and cork. The fishing industry does not fill domestic needs. Coral and sponges are marketed.

Climate. Italy's climate is variable. The Italian Riviera along the Gulf of Genoa is subtropical and highly favored by tourists. The winters in the high Apennines are cold and bitter. The western slope of peninsular Italy is warmer than the eastern side, and the Po basin in the north has cold winters and very hot summers. Sicily has a warm and equable climate. In Rome, December through February are the coldest months (average 47°), July and August the warmest (75°), with abundant sunshine. Rainfall is heaviest in the Alps and lightest in the lowlands (33 inches a year at Rome).

FORMER ITALIAN COLONIAL EMPIRE

Under the 1947 treaty, Italy ceded the Dodecanese to Greece and renounced title to her African possessions, which consisted of Libya, Eritrea and Italian Somaliland. Somaliland (now known as Somalia) remained under Italian administration as a U. N. trust territory.

SOMALIA—Status: U. N. trust territory under Italian administration.
Area: 198,275 square miles.
Population (est. 1954): 1,268,000.
Administrator: Enrico Martino.
Capital: Mogadiscio (population: 74,- 000).
Foreign trade (1954): exports, 62,251,991 somali*; imports, 81,893,388 somali. Chief exports: bananas (70%), dressed skins (10%).
Agricultural products: dressed skins, cattle, sugar, cotton, cottonseed oil, fruits, bananas.
Forest products: gum, resin, kapok.
Mineral: tin.

* One somalo = 14 cents U.S.

Somalia, a territory extending along Africa's east coast from the Gulf of Aden south to Kenya, fell within the Italian sphere of influence by treaties with the Somali Sultans in 1889 and by agreements with Britain in 1905 and 1924, with the Sultan of Zanzibar in 1905, and with Ethiopia in 1907. After the conquest of Ethiopia in 1936, the area was incorporated into Italian East Africa. It was occupied in Feb. 1941 by British troops.

Administration was turned over to Italy on Apr. 1, 1950, pursuant to a decision of the U. N. General Assembly on Nov. 21, 1949, under which the area is a U. N. trust territory. Administration is in the hands of Italy for a period of 10 years during which it is to be prepared for independence.

The overwhelming majority of the population are Somalis who belong to the Sunni sect of Islam; they are a pastoral, nomadic people whose livelihood depends on cattle, sheep and camels. However, the Italians (numbering 5,156 in 1953) established plantations in the south, especially in the

fertile Juba region. The territory is far from self-supporting, requiring heavy Italian subsidy. The climate is torrid.

Japan (Empire)

(Nippon)

Area: 146,690 square miles.
Population (est. 1954): 88,200,000.
Density per square mile: 601.3.
Ruler: Emperor Hirohito.
Premier: Ichiro Hatoyama.
Principal cities (census 1950): Tokyo, 5,385,071 (capital; financial, manufacturing center); Osaka, 1,956,136 (chief industrial center); Kyoto, 1,101,854 (manufacturing); Nagoya, 1,030,635 (machinery, textiles); Yokohama, 951,189 (seaport); Kobe, 765,435 (seaport, shipbuilding); Fukuoka, 392,649 (seaport, textiles); Sendai, 341,685 (manufacturing, educational center).
Monetary unit: Yen.
Language: Japanese.
Religions (1938): Buddhism, 60%; Shintoism, 21%; Protestant (215,166); Roman Catholic (118,856).

HISTORY. Japan's early history is inseparable from mythology. A series of legends attributes the creation of Japan to the sun goddess, from whom the later emperors were allegedly descended. The first of them was Jimmu Tennō, supposed to have ascended the throne on Feb. 11, 660 B.C.

Recorded Japanese history begins with the first contact with China in the 5th century A.D. Japan was then divided into strong feudal states, all nominally under the Emperor, but with real power often held by a court minister or clan. In 1185 Yoritomo, chief of the Minamoto clan, was designated Shogun (Generalissimo) with the actual administration of the islands under his control. Clans came and went, but a dual government system—Shogun and Emperor—persisted till 1867.

First contact with the West came about 1542, when a Portuguese ship off course arrived in Japanese waters. Portuguese traders, Jesuit missionaries, and Spanish, Dutch and English traders followed. Suspicious of Christianity and Portuguese support of a local Japanese revolt, the shoguns restricted all foreigners in 1636–38 except the Dutch, who were confined to Nagasaki. Western attempts to renew trading relations failed until 1853, when Commodore Matthew Perry sailed an American fleet into Tokyo Bay with a letter from President Fillmore.

Japan now quickly made the transition from a medieval to a modern power. Feudalism was abolished and industrialization was speeded. An imperial army was established with conscription. The shogun system was abolished in 1867 by Emperor Meiji, and parliamentary government was established in 1889. After a brief war with China in 1894–95, Japan acquired Formosa (Taiwan), the Pescadores islands, and part of southern Manchuria. China also recognized the independence of Korea (Chosen) which Japan later annexed (1910).

In 1904–05 the new Japan won prestige by defeating Russia in the Russo-Japanese War, gaining the territory of southern Sakhalin (Karafuto) and Russia's port and rail rights in Manchuria. In World War I Japan, which took a negligible part in military operations, seized Germany's Pacific islands and leased areas in China. The Treaty of Versailles then awarded her a mandate over the islands.

At the Washington Conference of 1921–22, Japan agreed to respect Chinese national integrity. The series of Japanese aggressions which was to lead to the nation's downfall began in 1931 with the invasion of Manchuria. The following year, Japan set up this area as a puppet state, "Manchukuo," under Emperor Henry Pu-Yi, last of China's Manchu dynasty. On Nov. 25, 1936, Japan joined the Axis by signing the anti-Comintern pact. The invasion of China came the next year, and the Pearl Harbor attack was unleashed on Dec. 7, 1941.

For many months after Pearl Harbor the Japanese army and navy enjoyed spectacular success, but by the end of 1942 the tide had begun to turn. Three years later the dropping of the world's first atomic bomb in combat on Hiroshima, followed by a second one on Nagasaki, knocked Japan swiftly into a surrender that already had become inevitable.

The formal surrender took place Sept. 2, 1945, aboard the battleship *Missouri* in Tokyo Bay. Southern Sakhalin and the Kurile Islands reverted to Russia, and Formosa (Taiwan) and Manchuria to China. The Pacific islands remained under U.S. occupation.

General of the Army Douglas MacArthur was appointed Supreme Commander for the Allied Powers (SCAP) Aug. 14, 1945. An 11-power (later 13-power) Far Eastern Commission was created to lay down occupation policies, while the 4-power Allied council advised and consulted with SCAP in carrying them out.

Soon after the surrender, Japan began the process of democratizing its political, social and economic structure under American eyes. Following the Socialists' victory in elections of April 20, 1947, Japan's first Socialist Premier, Tetsu Katayama, a Methodist long Christian, formed a Cabinet composed of Socialists, Democrats and members of the People's Cooperative party on May 24, 1947. Dissension between the left and right wings of his party forced Katayama's resignation on Feb. 10, 1948. He was succeeded by Hitoshi Ashida, a Democrat leader, on Feb. 21. Ashida yielded to Shigeru Yoshida on Oct. 14, 1948.

Pres. Truman removed Gen. MacArthur rom his post as Supreme Commander for he Allied Powers on April 11, 1951, and amed Gen. Matthew B. Ridgway in his lace.

On Sept. 8, 1951, a treaty of peace with apan was signed at San Francisco by the J. S. and 47 other nations. The U.S.S.R., Czechoslovakia and Poland were present at he conference but did not sign the treaty, which became effective April 28, 1952.

The treaty did not place any restrictions n Japan's political institutions, economy r armed forces. Japan was limited in territory to its 4 home islands, although the reaty did not recognize Soviet seizure of he Kurile Islands and South Sakhalin.

Conservative forces won an overwhelming ictory in parliamentary elections held Oct. 1, 1952, and Yoshida was re-elected Premier. Ichiro Hatoyama, leader of the ewly formed Democratic party, succeeded im on Dec. 9, 1954. The Democrats won he most seats in elections held Feb. 27, 955 and Hatoyama was re-elected Premier n March 18, 1955.

GOVERNMENT AND DEFENSE. The Constitution, effective May 3, 1947, made drasic changes in Japan's political system. The Emperor retains only ceremonial functions, and executive power is vested in the Cabinet, headed by the Premier and colectively responsible to the Diet. Lawmaking power is vested solely in the Diet, composed of two houses—the House of Representatives, popularly elected for fourear terms, and the House of Councillors, vith 250 members elected for six-year erms. A bill of rights guarantees certain asic liberties. Women are enfranchised or the first time. Sovereignty, formerly ested in the Emperor, now is vested in he people, and the House of Representaives can override the veto of the House f Councillors by a two-thirds vote.

The elections of Feb. 1955 distributed he 467 seats in the House of Representaives as follows (1953 standing in parenheses): Democratic, 185 (0); Liberal, 112 (199); left-wing Socialist, 89 (72); rightwing Socialist, 67 (66); Communist, 2 (1); others, 12 (129, including 76 Progressives and 35 dissident Liberals).

Ruler. Emperor Hirohito, born April 29, 1901, succeeded his father, Yoshihito, on Dec. 25, 1926. He was married on Jan. 26, 1924, to Princess Nagako, born in 1903. To hem were born two sons, Crown Prince Akihito (Dec. 23, 1933) and Prince Masahito (Nov. 28, 1935), and 5 daughters. Succession to the Japanese throne is in the male line only.

Defense. The peace treaty of 1951 placed no limitations on the right of Japan to rearm, but the Constitution prohibited the maintenance of armed forces. A national "police" reserve was created in 1950, and legislation enacted in June 1954 provided for the creation of Japanese military, naval and air "defense" forces, to be built up over a period of 8 years (strength in July 1954 was 150,000), each service to have its own general staff. The maritime force had 2 destroyers and 26 frigates and escort vessels in Dec. 1954. The U. S. was beginning to deliver jet fighters to the Japanese air force in 1954–55.

The bilateral defense pact between the U. S. and Japan which became effective April 28, 1952, provided for the indefinite disposition of U. S. armed forces in and about Japan. The U. S. was to furnish about $150,000,000 in defense equipment under a mutual defense assistance agreement signed March 8, 1954.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Article 26 of the 1947 Constitution provides that "all people shall have the right to receive an equal education correspondent to their ability," and that education shall be free and compulsory as provided by law. A 1947 law provided a simplified school structure with 6 years of elementary education (compulsory), 3 of lower secondary, 3 of upper secondary and 4 of university education. In 1953 Japan had 21,735 elementary schools with 11,225,469 pupils, 17,140 secondary schools with 7,715,378 pupils and 461 colleges and universities with an enrollment of 536,087.

Agriculture. Japan is traditionally a land of small farms and, except in Hokkaido, the northernmost island, there is almost no large-scale farming and animal husbandry. The average holding is less than three acres. Double cropping makes self-sufficiency possible, but on a low level of subsistence.

Major crops (thousands of metric tons):

	1952	1953	1954*
Rice (rough)	12,404	10,298	11,392
Barley	2,158	2,091	2,584
Wheat	1,537	1,374	1,586
Potatoes	2,515	2,415	2,714
Sweet potatoes	6,205	5,391	5,226

* Preliminary.

Production of silk cocoons (1954) was 100,300 metric tons; tea (1953), 57,000 tons. In 1953 there were 2,825,000 cattle, 994,000 pigs and 693,000 sheep.

Industry. Prewar Japan was one of the world's leading industrial nations and the only country in the Far East with highly developed textile, steel, machinery, chemical and electrical industries. The textile industry was dominant, but after 1931 considerable expansion took place in the heavy industries—metal, machinery-building and chemical—which were adaptable to war purposes.

Postwar industrial rehabilitation proceeded slowly, retarded by labor troubles

and deterioration of equipment; by 1955, however, the index of industrial activity stood at 257% of the 1948 level. In 1952 there were 168,109 factories employing 5 or more persons, with total employment of 4,319,082. On March 31, 1955, 77 ships of 535,513 gross tons were under construction in Japanese yards.

INDUSTRIAL PRODUCTION

(Thousands of metric tons)

	1952	1953	1954
Pig iron and ferroalloys	3,474	4,518	4,608
Steel ingots	6,988	7,662	7,740
Cement	7,118	8,768	10,675
Cotton yarn	799*	914*	1,024*
Cotton fabrics	2,239†	2,811†	3,184†

* Millions of lbs. † Millions of sq. yds.

Directives issued in 1945 effected the dissolution of the huge interlocking monopolies (*Zaibatsu*) in business and finance. Voting rights in the 80 major holding companies and 3,500 subsidiaries were taken over by a government commission which also seized securities held by members of *Zaibatsu* families, for resale to the public.

Trade. Before World War II, Japan ranked fifth in world trade. Private trade was resumed in Sept., 1947. Recent data are as follows (in millions of U. S. dollars):

	1952	1953	1954*
Exports	1,272.9	1,274.8	1,629.3
Imports	2,028.2	2,409.6	2,399.4

* Provisional.

Leading customers in 1954 were the U. S. (17%), Indonesia (7%), Brazil (5%) and Hong Kong (5%); leading suppliers, the U. S. (35%), Canada (5%), Australia (5%) and Mexico (4%). Leading exports were textiles (40%), machinery and ships (12%), iron and steel and manufactures (10%), chemicals (5%) and fish (4%). Imports included raw cotton (18%), rice (10%), petroleum and products (8%), wheat (7%) and wool (6%).

Communications. On Dec. 31, 1939, Japan had 4,084 ships of more than 100 tons, with an aggregate tonnage of 5,728,779. Before World War II the merchant marine carried almost 80 per cent of the foreign trade and was surpassed only by those of the U. S. and Britain. Wartime losses were enormous, but recovery was fairly steady. By June 30, 1954, there were 1,727 vessels (100 tons and over) with a gross tonnage of 3,577,826, according to *Lloyd's Register*.

Railway mileage in 1953 was 17,208. The national and prefectural highway system totaled 85,139 miles in 1952.

Finance. World War II left Japan with a staggering public debt, mounting inflation and a disorganized financial system. Recent data on general account (in billions of yen) are as follows:

	1952–53*	1953–54*	1954–55†
Revenue	1,078.8	1,219.0	999.9
Expenditure	873.9	1,017.2	999.9

* Provisional. † Budget estimate.

The national debt totaled 911,632,000,000 yen on March 31, 1955.

NATURAL FEATURES AND RESOURCES; CLIMATE. Japan's four main islands are Honshu, Hokkaido, Kyushu and Shikoku. The Ryukyu chain to the southwest is U. S. occupied and the Kuriles to the northeast are Russian occupied. The surface of the main islands consists largely of mountains separated by narrow valleys. There are about 50 more or less active volcanoes, including famous Fujiyama near Tokyo (12,385 ft.).

Minerals. Japan is relatively poor in minerals. Crude oil production in 1954 in Japan proper was 2,125,000 barrels, about one-third of current domestic requirements. With coal production estimated at 42,718,000 metric tons, the nation was still confronted with a fuel shortage. Other minerals include lead, silver, gold and copper.

Forests. Japan is well-wooded, with about 60,000,000 acres of forest. Among forest products are bamboo, charcoal and timber. Wood pulp production in 1954 totaled 1,340,241 metric tons; newsprint (1953), 413,000 tons; lumber (1953), 12,714,000 cubic meters.

Fisheries. Fishing, one of Japan's biggest industries, provides a staple food and considerable exports in normal years. The catch in 1953 amounted to 4,576,500 metric tons.

Climate. The Japanese climate ranges from subtropical in its southern extremes, to winter cold and snow in Hokkaido. The winter temperatures are moderated in the central islands by the Japan Current. The mean annual temperature in Tokyo is 56° and the capital's annual rainfall amounts to 60 inches.

Jordan (Hashemite Kingdom of)

Area (est): 37,110 square miles.*
Population (est. 1953): 1,332,989.*
Density per square mile: 35.9.*
Ruler: King Hussein I.
Prime Minister: Said el-Mufti.
Principal cities (est.): Amman, 170,000 (capital); Jerusalem (Jordani), 75,000 (religious center).
Monetary unit: Jordani dinar.
Language: Arabic.
Religions†: Moslem (Sunni), except about 30,000 native Christians and 7,000 Circassians.

* Including Arab Palestine (area: 2,125 sq. mi.; population, 745,786).
† Excluding Arab Palestine.

HISTORY. Jordan, once the Lordship of Oultre-Jourdain in the Latin Kingdom of

usalem, attracted world-wide attention 1948 when its King, Abdullah, led Arab ces in the invasion of Palestine from east. An ancient land, about the size Indiana, the small kingdom was known the time of Moses as Edom and Moab. passed to the Amorites of Damascus and A.D. 106 became part of the Roman prov- e of Arabia. In 633–36 it was conquered the Arabs, and a period of decline and opulation ensued. It fell to the Turks the 16th century.

Conquered from the Turks by the British World War I, Jordan was separated from Palestine mandate in 1920, and placed 1921 under the rule of Abdullah ibn ssein.

n 1923 Britain recognized Jordan's inde- ndence, subject to the mandate. During rld War II, Jordan co-operated com- tely with Britain. On March 22, 1946, tain abolished the mandate and recog- ed the full and complete independence Jordan. That part of Palestine occupied Jordani troops was formally incorpo- ed by action of the Jordani Parliament Apr. 24, 1950.

Abdullah was assassinated June 20, 1951. son Talal was deposed as mentally ill g. 11, 1952. Talal's son Hussein, born y 2, 1935, succeeded him.

VERNMENT AND DEFENSE. Jordan is a nstitutional monarchy. The King rules h the aid of a Cabinet of department ads responsible to Parliament, which sists of the popularly elected Chamber Deputies of 40 members and the Senate 20 appointed members. Arab Palestine represented in both bodies.

Defense of the country is entrusted to British-trained Arab Legion of about 000 men, the most effective force among Arab armies. The Anglo-Trans-Jordan- treaty of March 20, 1948, replacing t of March 22, 1946, has mutual assist- ce provisions and permits Britain to intain air force units. Jordan receives annual defense subsidy from Britain.

CIAL AND ECONOMIC CONDITIONS. e in Jordan is primitive; there are esti- ted to be 50,000 nomads and 120,000 minomads. At least 95 per cent of the al area is desert. At least one-half population is believed to be illiterate. 1952 there were 783 elementary and intermediate secondary schools with al enrollment of 139,000.

Most of the country is suitable only for sturing sheep, goats and camels. Culti- ed land is limited to a relatively small a west of the Hejaz Railway. In the er cultivated areas of the plateau, the abitants retain tribal organization and l live in tents. Foreign trade is limited the exchange of wheat, fresh fruit, wool l live animals for sugar, tea, and other cessities. Exports in 1952 were 1,500,000 dinars; imports, 17,400,000 dinars. Leading suppliers in 1952 were Britain (17%), Lebanon (13%) and Syria (11%). Most of the exports go to neighboring Arab countries.

Despite the sparse settlement of the country, Jordan has good roads to Israel, Syria and Iraq. It is crossed from north to south by the Hejaz Railway.

TOPOGRAPHY AND CLIMATE. Jordan is mainly a plateau with an average altitude of 3,000 feet, sloping gently eastward. The western edge is a steep slope overlooking the Rift Valley (Jordan River, Dead Sea and Wadi el Araba) 3,000–4,000 feet below. In the south are mountains over 5,000 feet high and a sandstone area cut by deep canyons. Jordani Palestine is largely a hilly plateau. Jordan borders on the Red Sea for a few miles in the southwest. The subtropical steppe and desert have wet cold winters and dry hot summers. Rainfall near the escarpment decreases from about 26 inches in the north to 10 inches in the south. Average maximum temperature in August is 92°; average minimum in January is 39°.

Korea (Chosen)

Area: 85,225 square miles.
Population (est. 1951): 30,000,000 (almost entirely Korean).
Density per square mile: 352.0.
President, South Korea: Syngman Rhee.
Premier, North Korea: Kim Il-sung.
Principal cities (est. 1949): Seoul (Kyongsong), 1,446,049 (capital); Fusan (Pusan), 473,619 (chief seaport); Pyongyang, 450,000 (capital, northern Korea); Taegu, 313,705 (silk center); Inchon, 265,767 (seaport).
Monetary unit: Hwan.
Languages: Korean, Chinese, Japanese.
Religions: Buddhist, Confucianist, Taoist, Christian (500,300 Christians in 1938).

HISTORY. Korea, a peninsula about 600 miles long extending out from Asia between the Yellow Sea and the Sea of Japan, was an international battleground in 1950–53, when Communist troops of North Korea invaded the U. N.-recognized Republic of South Korea below the 38th parallel.

According to legend which may be partly historical, a Chinese sage named Kija founded the kingdom of Chosun ("Morning Calm") in 1122 B.C. and thus began a dynasty which lasted until 193 B.C. In 108 B.C. Korea was annexed to China, and later divided into three small principalities which formed the kingdom of Silla. Silla revolted in A.D. 918 and declared its independence. In 1592 the Koreans defeated a Japanese fleet and, with Chinese help, ousted the Japanese invaders from their land. In 1627, the Manchus seized Korea and placed it again under Chinese sovereignty. In the Chinese-Japanese War of

1894–95, Japan won predominant influence in Korea, and in 1905 reduced it to a protectorate. In 1910 Japan formally annexed Korea. A Korean bid for independence was crushed ruthlessly in 1919.

In Aug. 1945, at the end of World War II, Korea was occupied by Soviet and U. S. troops. The United States, United Kingdom and Soviet Union agreed at Moscow in Dec. 1945 that Korea should be placed under the trusteeship of those three powers and China for a period not to exceed five years. The U. S. and the U.S.S.R. were unable to agree on the formation of an all-Korean provisional government, and in Nov. 1947 the U. N. General Assembly set up a commission, boycotted by the U.S.S.R., to arrange for elections. Elections were held in the U. S. zone on May 10, 1948, for a national assembly, which on July 12 adopted a republican Constitution and on July 20 elected Syngman Rhee President. The new republic was proclaimed on Aug. 15 and was recognized as the legal government of Korea by the U. N. General Assembly on Dec. 12, 1948. Meanwhile, a North Korean "People's Republic" had been formed in the Soviet zone north of the 38th parallel on May 1, 1948. It claimed jurisdiction over all of Korea.

On June 25, 1950, South Korea was attacked by North Korean Communist forces. U. S. armed intervention was ordered on June 27 by Pres. Truman and on the same day the U. N. invoked military sanctions against North Korea. Gen. Douglas MacArthur was named commander of U. N. forces on July 7. U. S. and South Korean troops fought a heroic holding action, but by the first week of August, they had been forced back to a 4,000 sq. mi. beachhead in southeast Korea. There they stood off superior North Korean forces until Sept. 15, when a major U. N. amphibious attack was launched far behind the Communist lines at Inchon, port of Seoul. By Sept. 30, U. N. forces were in complete control of South Korea; they then invaded North Korea and were nearing the Manchurian and Siberian borders when several hundred thousand Chinese Communist troops entered the conflict in late October. U. N. forces then retreated successfully below the 38th parallel, where in succeeding months they repulsed several major attacks. On May 24, 1951, they recrossed the parallel and had made important new inroads into North Korea when truce negotiations began on July 10 at Kaesong. The truce talks, later moved to Panmunjom, continued periodically in 1952 and 1953 amid sporadic hostilities. An armistice was finally signed at Panmunjom on July 27, 1953, leaving a devastated Korea in need of large-scale rehabilitation. The armistice contemplated an international political conference on the status of Korea, but negotiations for arranging it broke down. The question was discussed without result at the Geneva conference on Far Eastern problems (April 26–June 19, 1954).

The U. S. and South Korea signed a mutual defense treaty on Oct. 1, 1953, and in Aug. 1953 the U. S. Congress authorized the use of up to $200,000,000 for the rehabilitation and economic support of South Korea.

GOVERNMENT. South Korea is a republic with legislative powers vested in a bicameral Parliament and executive power in a popularly elected President and a Cabinet named by him.

North Korea is a typical Soviet state under the Constitution adopted on Sept. 2, 1948.

SOCIAL AND ECONOMIC CONDITIONS. In 1952, there were 2,525,369 pupils in elementary schools, 298,980 in middle schools, and 140,550 in higher schools in South Korea. There is a university at Seoul.

The Korean population is more or less homogeneous and successfully withstood Japanese efforts to assimilate it. South Korea has 43 per cent of the peninsula's area and over two-thirds of its population.

Korea, predominantly agricultural, cultivates about 12,000,000 acres. Chief products are rice, barley, oats, rye, millet, soybeans, tobacco, cotton and wheat. The 1954 rice crop in South Korea was about 3,300,000 metric tons.

Industrial development was speeded in the last years of Japanese rule. The leading industries by value of output ordinarily are chemical, textile, food, beverage and tobacco. Korea north of the 38th parallel has by far the larger portion of the country's industry and abundant hydroelectric resources.

Korea's prewar foreign trade was closely linked with that of Japan. South Korea's postwar trade has been financed to a large extent by U. S. funds. Imports in 1953 totaled $141,646,500 (excluding U. S.- and U. N.-financed imports of $317,000,000); exports were $97,347,000. Over 50% of the trade was with Japan. Chief imports were foodstuffs, mainly rice, and manufactured goods such as textiles and fertilizer; chief exports were raw materials. North Korea's trade is chiefly with Communist China and the U.S.S.R.

Land communications, well developed by the Japanese for strategic reasons, included about 3,500 miles of railway and 21,000 miles of highway in 1952.

South Korea is insolvent and dependent on U. S. and other contributions. The 1954–55 budget (Apr. 1–June 30) provided for expenditure of 62,489,000,000 hwan and revenue of only 29,494,000,000 hwan. The hwan was introduced in Feb. 1953 to replace the inflated won.

ATURAL FEATURES AND RESOURCES; LIMATE. Korea's coast, with a rugged ountain range along the east, is fringed th more than a thousand islands. Several vers are navigable for more than a hun- ed miles, including the Rakuto in the uth, the Kan in the central region and e Yalu in the northwest, on the Man- urian border.

Korea's best mining regions are in the rth. Leading products are coal, gold, sil- r, copper, tungsten ore, iron ore, graph- e, lead, alum stone and pyrite ore.

Despite Japanese exploitation, consider- le Korean forest areas remain, especially the north.

The climate is about like that of the idwestern United States, except for a eavy rainy season in July and August. nnual rainfall is approximately forty ches.

Latvia

Area: 25,395 square miles.
Population (est. 1950): 2,100,000 (1940: ettish, 75.5% [1950: 58%]; Russian, 12%; erman, 3.2%; Polish, 2.5%; others, 6.8%).
Density per square mile: 78.5.
Principal cities (est. 1952): Riga, 600,000 apital); Liepaja, 80,000 (seaport).
Language: Latvian.
Religions (census 1930): Lutheran, .6%; Roman Catholic, 23.7%; Greek Or- iodox, 8.9%; others, 10.8%.

Descended from ancient Aryan stock, the atvians were early tribesmen who settled ong the Baltic Sea and, lacking a central overnment, fell an easy prey to more owerful peoples. The German Teutonic nights first conquered them in 1158 and lled the area as two states—Livonia and ourland. Poland conquered the territory 1562 and ruled until 1795 in Courland; ontrol of Livonia was disputed between veden and Poland from 1562 to 1629. veden controlled Livonia from 1629 to 721. Russia took over Livonia in the lat- r year, and Courland after the third par- tion of Poland in 1795. From that time ntil 1918, the Latvians remained Russian ubjects, although they preserved their nguage, customs and folklore. The Rus- an Revolution of 1917 gave them their pportunity for freedom, and the Latvian public was proclaimed on November 18, 918.

The republic lasted little more than 20 ears. It was occupied by Russian troops 1939 and incorporated into the U.S.S.R. 1940. German armies occupied the na- on from 1941 to 1943–44, when they were iven out by the Russians. Most coun- ies, including the United States, have re- used to recognize the Soviet annexation of atvia.

Lebanon (Republic)

Area: 3,475 square miles.
Population (est. Dec. 31, 1954): 1,450,000 (Arabian, Armenian, Circassian, Turk).
Density per square mile: 417.3.
President: Camille Chamoun.
Premier: Sami Solh.
Principal cities (est. 1954): Beirut, 375,- 000 (capital, chief port); Tripoli, 120,000 (oil pipe-line terminus).
Monetary unit: Lebanese pound (£L).
Languages: Arabic, French.
Religions: Maronite, Greek Orthodox, Greek Catholic, Mohammedan.

HISTORY. Smaller than Connecticut, Lebanon lies at the eastern end of the Mediterranean, between Israel and Syria. In ancient times it was the mountainous hinterland of the Phoenician coast towns. From the 7th to the 11th centuries there infiltrated into southern Lebanon the heretics of Islam who finally coalesced into the Druse community.

In the 19th century the Turkish Sultanate encouraged the Druses to wage civil war against the Christian Maronites. After a massacre of 2,500 Christians in 1860, Lebanon was occupied by the French for a year. From 1864 to 1914, a Christian military government ruled the area under nominal Turkish sovereignty. After World War I, France received a League of Nations mandate over Syria and Lebanon. The French drew a Lebanese border in 1920 to offset predominantly Moslem Syria and proclaimed the area a republic under French control on May 23, 1926.

Vichy forces controlled Lebanon after the fall of France in 1940, but the Allies replaced them by July 14, 1941. Despite Syrian objections, the French permitted Lebanon to declare its complete independence on Nov. 26, 1941. Lebanon joined the Arab League and took part in the invasion of Palestine on May 15, 1948.

Bishara el-Khoury, President since 1943, resigned in Sept. 1952 and was succeeded by Camille Chamoun.

GOVERNMENT. The modern Lebanese republic is governed by a President elected by Parliament, for a six-year term, and a Cabinet of Ministers appointed by the President, but responsible to Parliament, which has 44 members. An independent army has been formed, based on a cadre of native *troupes spéciales*, formerly part of the French army in the Levant. The last French troops were evacuated late in 1946.

SOCIAL AND ECONOMIC CONDITIONS. In 1952 there were 182,327 students attending 2,201 state, Moslem, Christian, private, French, American and British schools. Beirut has three universities. Students totaled 3,537 in 1953.

Lebanon produces tobacco, olives, grapes and other fruits, wheat and silk. Manufacturing is confined mainly to local consum-

ers' goods. The silk industry is important in Beirut and Tripoli; cocoon production averages about 6,000 tons annually. Tobacco manufacturing is a government monopoly. An oil refinery was opened at Tripoli in 1950. (Output 1954: 545,665 metric tons.)

The customs union with Syria was dissolved in March 1950. Recent trade data (millions of Lebanese pounds):

	1952	1953	1954
Exports	77.6	87.8	105.6
Imports*	347.0	361.7	484.4

* Valued at official rates.

Leading customers in 1954 were Syria (14%), Saudi Arabia (11%) and Egypt (8%); leading suppliers, Syria (22%), the U. S. (15%) and France (8%). The leading exports were fruits, vegetables and barley.

A rail line links Beirut with Damascus and Syria. Another, built in World War II by Allied engineers, runs from Tripoli to the Israeli border, and is part of a line from Cairo to Istanbul, via Haifa. One of the oil pipelines from the Kirkuk field in Iraq terminates at Tripoli; the trans-Arabian pipeline from Saudi Arabia ends at Sidon.

TOPOGRAPHY AND CLIMATE. The topography is varied. There is a narrow coastal plain, and the steep Lebanon Mountains reach heights of approximately 10,000 feet. There are no large streams. Iron ore deposits are worked in the south, and building stone and marble are plentiful. The country also has thick deposits of inferior lignite coal. Lebanon has hot dry summers (about 80° in Beirut) and cool rainy winters (50°–60° in January). At Beirut, annual rainfall is more than 35 inches.

Liberia (Republic)

Area: c. 40,000 square miles.
Population (est. 1953): 1,500,000 (native Negro, 99%; American Negro, .8%; white, .1%; others, .1%).
Density per square mile: c. 37.5.
President: William V. S. Tubman.
Principal city: Monrovia (est. pop. 10,000; capital and chief port).
Monetary unit: U. S. dollar.
Languages: English (official), native tongues.
Religion: Protestant Christian (official); Mohammedan, Catholic, Pagan.

HISTORY. The history of Liberia, Africa's only republic, dates from 1816, when the American Colonization Society received a charter from the U. S. Congress, authorizing it to send emancipated Negro slaves to the west African coast.

The first settlers, who were led by Jehudi Ashmun, landed in 1822 at Cape Mesurado near the present site of Monrovia. White governors, named by the society, administered Liberia until 1841. On July 26, 1847, independence was proclaimed, and the first President was Joseph J. Roberts, a Virginia octoroon of considerable ability.

After 1920, considerable progress was made toward opening Liberia's interior, but even today only about 100,000 of its inhabitants are regarded as civilized, and lack of transportation hampers development of the heavily forested inland. In 1942, a U. S.–Liberian agreement admitted U. S. troops to build strategic airports.

In 1944 an agreement provided for permanent U. S. military and naval bases.

GOVERNMENT. The government is modeled after that of the United States. The President and Vice President are popularly elected for eight years. The 31-member House of Representatives is elected for four years and the ten-member Senate for six years. Suffrage is extended only to landowners over 21 who are of Negro blood, but a 1946 constitutional amendment provided for the seating in the House of an aborigine from each province in the hinterland. Liberia's army of about 4,000 men is organized on a militia basis.

SOCIAL AND ECONOMIC CONDITIONS. Education, compulsory in theory, is conducted in 485 schools, slightly over half state and the remainder mission and private. There are 5 state and 10 mission high schools, 1 state university and 2 mission colleges.

The English-speaking descendants of U. S. Negroes, known as Americo-Liberians, are the intellectual and ruling class. The aborigines, virtually all uncivilized, are divided into some 28 tribes speaking different dialects. Some are Moslems or pagans. Christians include Anglicans, Methodists, Catholics, Baptists and Presbyterians.

Agriculture, on a crude level, is the principal means of livelihood for the tribal Liberians, who raise coffee, rice, sugar cane and cassava. Native manufacturing is non-existent except for small industry, and the country's only big enterprise is the million-acre concession granted in 1925 to the Firestone Plantations Company for rubber cultivation. Exports in the year 1954 totaled 40,474 short tons. A large iron ore concession has been developed in the Bomi Hills area by Republic Steel Corp.; the first shipment left Monrovia in June 1951. Exports in 1954 totaled 1,238,500 long tons.

Most of the trade is with the United States. Exports in 1954 totaled $26,378,100, including rubber (71%), iron ore (17%) and palm kernels (4%). The U. S. took 84% of the exports. Imports were $22,725,500, mostly textiles, vehicles, machinery, petroleum and food.

Liberia's first railroad, a 43-mile narrow gauge line from Monrovia to the Bo

ls iron-ore concession, began operation 1951. Coastwise and international air vice is supplied by Pan American Airys. Interior travel is still largely by foot th native bearers, but important progs in road construction was made during d after World War II. There are no harrs except a port and naval base comted in 1947 at Monrovia, with U. S. istance, at a cost of more than $19,-),000.

OPOGRAPHY AND CLIMATE. Liberia, out the size of Ohio, has a 350-mile ntage on the west coast of Africa, beeen the Ivory Coast and Sierra Leone. only well developed area is a low coastal ip running inland about seven miles. yond that is a low plateau, some of it ountainous, traversed by many rivers, of ich the Cavalla (Kavalli) and the St. ul's are the most important. The climate tropical throughout, with rainfall up to) inches a year on the coast.

Libya (Kingdom)

Area: 679,340 square miles.
Population (census 1954)*: 1,091,830
erber, with Arab admixture, 93%; Ital-
n, 5%; Jewish, 2%).
Density per square mile: 1.6.
Ruler: King Idris I.
Prime Minister: Mustafa ben Halim.
Principal cities (est. 1950): Tripoli, 144,-
6 (joint capital); Misurata, 70,000
oastal city); Bengasi, 59,087 (joint cap-
l).
Monetary unit: Libyan pound (£L).
Languages: Arabic, Italian.
Religions: Mohammedan (93%), Chris-
n (5%), Jewish (2%).
* Preliminary figures.

STORY AND GOVERNMENT. Libya, retching along the northern coast of rica between Tunisia and Egypt, was a rt of the Turkish dominions from the th century until 1911. Following the outeak of hostilities between Italy and Tury in the latter year, Italian troops cupied Tripoli; Italian sovereignty was cognized the next year by the Treaty of ichy.

Libya was the scene of much desert hting during World War II. After the fall Tripoli on Jan. 23, 1943, it came under lied administration. The U. N. General sembly voted on Nov. 21, 1949, that Libya ould become independent by 1952.

Following the adoption by the constitnt assembly of a Constitution, the indendence of the country was proclaimed King Idris I on Dec. 24, 1951.

Under the Constitution, Libya is a heditary monarchy with a federal form of vernment. Tripolitania, Cyrenaica and e Fezzan are the constituent provinces. has a bicameral Parliament consisting of a Senate of 24 members, half named by the King and half by the 3 provincial legislatures, and a House of Representatives elected on a proportional representation basis according to population. The Cabinet, headed by the Prime Minister, is responsible to the federal Parliament.

The ruler, King Idris I, hereditary head of the powerful Senussi sect in Cyrenaica, was born in 1890.

SOCIAL AND ECONOMIC CONDITIONS. Tripolitania, with one-sixth the area, has 68% of the population; Cyrenaica has 27% and the Fezzan 5%. About 75% of the population is rural and about 45% of that is nomadic or seminomadic. A large proportion of the area is desert.

Animal husbandry is the basic economic activity, and there are considerable numbers of cattle, sheep, camels and goats. Agriculture is possible only in the Mediterranean coastal region, where dates, olives, citrus fruit, wheat and barley are grown, and in oases in the Fezzan and elsewhere; here the principal product is dates. Sponge and tunny fisheries are carried on off the coast.

Important exports include wool, hides, skins, cattle, horses, sponges and esparto grass.

Railroads total 242 miles. A road extends along the coast. The principal means of communication inland are the caravans, which follow traditional routes.

TOPOGRAPHY AND CLIMATE. The area has three natural divisions from the coast inland—the Mediterranean coastland, the sub-desert, and the desert.

Winters are cool and summers warm along the coast, and hotter in the interior. Bengasi has an average temperature of 55° in January and 78° in July. Rainfall in the Tripoli area is about 15 inches a year.

Liechtenstein (Principality)

Area: 65 square miles.
Population (census 1950): 13,757 (mostly German).
Density per square mile: 211.6.
Ruler: Prince Franz Joseph II.
Chief of Government: Alexander Frick.
Principal city (census 1950): Vaduz, 2,735 (capital).
Monetary unit: Swiss franc.
Language: German.
Religion: Roman Catholic.

Tiny Liechtenstein lies on the east bank of the Rhine, just south of Lake Constance, between Austria and Switzerland. It abolished its army in 1868 and has managed to stay neutral and undamaged in all European wars which have occurred since that date.

Founded in 1719, Liechtenstein became independent in 1866. Franz Joseph II, the reigning Prince, was born in 1906, and

succeeded his great uncle, Franz I, in 1938. In 1943 he married Countess Gina Wilczek, of Austria.

The Constitution of 1921 provided for a legislature, the *Landtag*, of 15 members elected by direct, universal suffrage. Liechtenstein adopted Swiss currency in 1921, and has been part of the Swiss Customs Union since 1924. Its foreign trade statistics are included in those of Switzerland, which also administers the country's telegraph and postal service.

Wheat, wine and fruit are the chief products. There are small manufactures of cotton, leather and pottery.

In 1955 there were 18 elementary and secondary schools, with total enrollment of 2,507.

Liechtenstein's area includes low valley land and upland peaks—Falkais at 8,401 feet, and Naafkopf, 8,432 feet. The chief mineral product is marble.

Lithuania

Area: 22,958 square miles.
Population (est. 1950): 3,000,000 (1940: Lithuanian, 81% [1950: 55%]; German, 4%; Polish, 3%; Russian, 2%; others, 10%).
Density per square mile: 125.4.
Principal cities (est. 1942): Vilnius (Vilna), 182,000 (capital); (est. 1941) Kaunas, 120,000 (river port).
Language: Lithuanian.
Religions: Roman Catholic, 80%; Lutheran, 5.5%; others, 14.5%.

Southernmost of the three Baltic states, Lithuania in the middle ages was a grand duchy joined to Poland through royal marriage. Poles and Lithuanians merged forces to defeat the Teutonic Knights of Germany at Tannenberg in 1410 and extended their power far into Russian territory. In 1795, however, following the third partition of Poland, Lithuania fell into Russian hands and did not gain its independence until 1918, toward the end of World War I.

The republic was occupied by the U.S.S.R. in 1939 and annexed outright the following year. From 1940 to 1944 it was occupied by German troops and then was retaken by the Soviet Union. Western countries, including the U. S., have not recognized the Russian annexation.

Luxemburg (Grand Duchy)

Area: 1,010 square miles.
Population (est. Dec. 31, 1954): 308,000 (Luxemburgian, French, German).
Density per square mile: 304.8.
Ruler: Grand Duchess Charlotte.
Premier: Joseph Bech.
Principal city (census 1947): Luxemburg, 61,590* (capital; iron and steel).
Monetary unit: Luxemburg franc.
Languages: Luxemburgian, French, German.
Religion: Mainly Roman Catholic.
* Population actually present at time of census.

HISTORY. Luxemburg is a small buffer state between France, Germany and Belgium. Invaded and occupied in both World Wars I and II despite the fact that its neutrality was guaranteed, Luxemburg suffered most in the latter war, when the Nazis deported several thousand natives as slave labor.

Sigefroi, Count of Ardennes, an offspring of Charlemagne, was Luxemburg's first sovereign ruler. In 1060 the country came under the rule of the House of Luxemburg. From the 15th to the 18th centuries, Spain and Austria held it in turn. The Congress of Vienna in 1815 made it a Grand Duchy and gave it to William I, King of the Netherlands. In 1839 the Treaty of London ceded the western part of Luxemburg to Belgium.

After the Nazi invasion on May 10, 1940, the government fled the country, returning in 1944 after Allied troops had liberated it. In 1948 the grand duchy joined the Western European Union, and in April 1949 it adhered to the North Atlantic Pact.

GOVERNMENT. Luxemburg is a constitutional monarchy with the Crown hereditary in the House of Nassau. The sovereign, Grand Duchess Charlotte, was born January 23, 1896. The heir to the throne is Prince Jean, born Jan. 5, 1921.

The Constitution of 1868, as amended in 1919, provides for democratic government through a Chamber of Deputies of members, popularly elected for six-year terms. The Constitution leaves to the sovereign the right to organize the government, which consists of a Minister of State who is President of the government (Premier) and at least 3 other ministers. There is also a Council of State of 15 members, chosen for life by the sovereign.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory for all children between the ages of 6 and 13. The common or idiomatic language is *letzeburgesch*. German and French are also spoken. Illiteracy has been practically unknown since 1900.

Although the soil is not very fertile, agriculture is prosperous. Principal crops are potatoes, oats, wheat, rye and grapes. Wine production in 1954 was 2,600,000 U. S. gal.

The mining and metallurgical industry, based on iron ore found in the south, is the most important. In 1954 an average of 25 blast furnaces employed 18,942 workmen and produced 2,799,789 metric tons of pig iron. Production of steel ingots was 2,828,212 tons. Electrical energy produced in 1954 totaled 988,669,000 kwh. Other industries include brewing, sparkling wine, leather, textiles and cement.

y a customs union between Belgium Luxemburg which came into force on 1, 1922, to last for 50 years, customs ıtiers between the two countries were lished. On Jan. 1, 1948, an economic on with Belgium and the Netherlands nelux) came into existence. Luxem-g's foreign trade figures are included hose of Belgium and no separate statis- are available; exports consist chiefly of and steel products.

ransportation facilities in 1952 included miles of railway, 1,310 miles of state ds and 1,305 miles of local roads.

uxemburg's prosperity depends largely its rich iron ore mines, which pro-ed 5,887,068 metric tons in 1954. Ex-ts totaled 1,435,189 tons.

Maldive Islands (Sultanate)

rea: c. 115 square miles.
opulation (est.): c. 93,000.
ensity per square mile: c. 808.7.
ultan: Amir Mohammed Farid Didi.
rime Minister: Ibrahim Ali Didi.
rincipal city (est.): Malé, 8,000 (capital).
lonetary unit: Rupee.
anguages: Sinhalese (dialect), Arabic.
eligion: Mohammedan.

he Maldive Islands, about 400 miles to southwest of Ceylon in the Indian an, were first visited by the Portu-se in the 16th century. They came under tish protection in 1887 and were a de-dency of the colony of Ceylon until 8, when relations with Britain were nalized in a treaty which left domestic irs in the hands of the islanders.

or centuries a sultanate, the islands pted a republican form of government 1952, but the sultanate was restored Feb. 1954. There is a bicameral legis-ıre which is popularly elected.

he people are great traders and fisher-n. Besides fishing, coir making is the ef local industry. Exports include coir, onuts, copra, millet and fruit.

he islands consist of 12 coral atolls h about 2,000 small islands, of which ut 300 are inhabited.

Mexico (Republic)
(Estados Unidos Mexicanos)

rea: 758,061 square miles.
opulation (est. June 30, 1954): 28,849,- (mestizo, 55%; Indian, 29%; white, %; others, 1%).
ensity per square mile: 38.1.
resident: Adolfo Ruiz Cortines.
rincipal cities (census 1950): Mexico 7, 2,234,795 (capital); Guadalajara, 377,- (manufacturing); Monterrey, 333,422 etallic industries); Puebla, 223,667 (cot-textiles); Mérida, 142,858 (sisal); San s Potosí, 125,662 (mineral smelting).

Monetary unit: Peso.
Languages (1940): Spanish, 94%; Indian, 6%.
Religion: Predominantly Roman Catholic.

HISTORY. Mexico's early history is shrouded in mystery. At least two civilized races—the Mayas and later the Toltecs—preceded the wealthy Aztec empire conquered in 1519–21 by the Spanish under Hernando Cortez. Spain ruled for the next 300 years until 1810 (the date was Sept. 16 and is now celebrated as Independence Day), when the Mexicans first revolted. They continued the struggle and finally won independence in 1821 by the Treaty of Córdoba.

Turbulent years followed. From 1821 to the first presidency of Porfirio Díaz in 1877, there were two Emperors, several dictators and enough Presidents and provisional executives to make a new government on the average of every nine months. Mexico lost Texas (1836), and after defeat in the war with the United States (1846–48) it lost the area comprising the present states of California, Nevada and Utah, most of Arizona and New Mexico, and parts of Wyoming and Colorado.

In 1855 the Indian patriot Benito Juárez began a series of liberal reforms including the disestablishment of the Catholic Church, which had acquired vast property. A subsequent civil war was interrupted by the French invasion of Mexico (1861), the crowning of Maximilian of Austria as Emperor (1864), and then his overthrow and execution by forces under Juárez, who again became President in 1867.

During the rule of the dictator Porfirio Díaz (1877–80 and 1884–1911) the country was freed from political strife, made substantial economic progress, and gained a respected position in foreign affairs. But Díaz' reactionary land policy led to revolution and his resignation in 1911. The next few years were marked by bloody political-military strife, and trouble with the United States culminating in the punitive expedition into northern Mexico (1916–17) in unsuccessful pursuit of the bandit-politician Pancho Villa.

Lázaro Cárdenas (1934–40), backed by the National Revolutionary party (PRI), began a socialistic program of land distribution to peasants, government seizure of foreign-owned oil lands, and broad labor reforms. General Manuel Avila Camacho, President during World War II, cooperated closely with the United Nations and followed Cárdenas' policy at home.

In July 1946, Miguel Alemán was elected President, backed by the Avila Camacho administration and the PRI. Alemán continued the internal policy initiated by Cárdenas; his administration was marked by continued cordial relations with the

United States. Adolfo Ruiz Cortines, the administration candidate, was elected to succeed him in quiet elections held in July 1952; he took office Dec. 1.

GOVERNMENT AND DEFENSE. The President, popularly elected for six years and ineligible to succeed himself, governs with a Cabinet of ministers. The Federal Congress has two houses—the 162-member Chamber of Deputies, elected for three years (one for each 150,000 population) and the 60-member Senate, elected for six years. All married male citizens at least 18, and all single male citizens at least 21 are eligible to vote. Women received the right to vote in 1953.

Each of the 29 states has considerable autonomy, with a popularly-elected Governor, legislature and local judiciary. The President appoints the Governors of the two Federal territories, and the governing body of the Federal District.

Military service is compulsory, and the President holds supreme command of the armed forces, through the Secretary of War. The national army, greatly modernized during World War II, numbered about 55,000 men in 1951; the air force had 270 planes and two U. S.-trained squadrons. In Dec. 1954, the navy had 8 frigates and escort vessels and a number of other smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Illiteracy is one of Mexico's big problems, and the government is trying hard to reduce the rate, estimated at 21 per cent in 1950, as against 60 per cent in 1930. Education is free, compulsory from 6 to 16, separated from the church, and under Federal control. There were 24,583 primary schools in 1951 with an enrollment of 2,660,232 and 451 secondary schools with 69,642 students. The 14 universities had 36,354 students in 1950; 24,542 students attended the University of Mexico at Mexico City.

Agriculture. Primitive agricultural methods are steadily giving way to modern practices. More than 17,000,000 acres are under cultivation. About 1,750,000 acres are irrigated, but the eventual total of watered land is expected to be 5,500,000 acres. The Yucatán peninsula, at the southern end of the Gulf of Mexico, raises more than half of the world supply of sisal hemp (91,221 metric tons in 1953).

Production estimates for principal crops in 1954–55 were as follows, in metric tons: wheat, 816,000; maize, 4,300,000; rice, 159,000; coffee, 1,500,000 bags of 132 lb. each; oranges, 557,000; cotton, 274,000; cottonseed, 465,000. Sugar production in 1954–55 totaled about 948,000 tons.

Stockraising is important on non-arable land. Mexico's inventory of livestock in 1951 showed an estimated 14,600,000 cattle, 6,000,000 sheep, and 6,000,000 hogs.

Industry. Total value of industrial production in 1953 was 5,935,054,000 pesos, of which cotton cloth and thread accounted for 15%; beer, 10%; sugar, 10%; and iron and steel, 9%. Other products were flour, soap, cigars and cigarettes, rubber manufactures, vegetable oils, paper, wool, silk and rayon yarn and cloth, cement, shoes and glass. In 1954, 226,800 metric tons of pig iron and 408,000 tons of steel were produced.

Trade. Foreign trade data, in millions of pesos, are as follows:

	1952	1953	1954*
Exports	5,022	4,637	6,28
Imports	6,984	7,017	8,07

* Preliminary; the peso was devalued Apr. 19, 1954.

Chief exports in 1953 were cotton (24%), coffee (12%), lead (9%), copper (6%) and petroleum and products (5%). The U. S. took 74% of the exports and supplied 82% of the imports. Other leading customers were Japan, Britain and Belgium. Leading imports of the nation included wheat, machinery, vehicles and iron and steel products.

Communications. Railway mileage (1951) was 14,575. Total road mileage (1953) was 37,300, of which 15,450 mi. were all weather. The merchant fleet had 84 vessels (100 tons and over) aggregating 169,32 gross tons on June 30, 1954 (*Lloyd's Register*). Veracruz and Tampico, on the Gulf of Mexico, are the country's most important ports.

Finance. Recent government financial data are as follows (in millions of pesos):

	1953*	1954†	1955
Revenue	4,645.2	4,837.7	5,685
Expenditure	4,802.9	4,837.7	5,681

* Preliminary. † Voted estimate. ‡ Cabinet budg

The national debt amounted to 4,695,100,000 pesos on Dec. 31, 1952.

NATURAL FEATURES AND RESOURCES. CLIMATE. Mexico is a great, high plateau, open to the north, with mountain chains on east and west and with ocean front lowlands lying outside of them. has two big spears—the peninsula Lower California which is mountainou and the Yucatán peninsula, which is most a low plain. The eastern mountains a marked by high volcanoes.

Minerals. Mexico is one of the richest mineral countries in the world. It ou ranks all other countries in silver produ tion (1954: 39,895,546 troy oz.). Oth minerals, with 1954 production, are go 386,925 oz.; lead, 232,558 short tons; zi 246,638 tons; copper, 62,215 tons; a antimony, 4,609 tons. A considerable va ety of other industrial minerals is p duced. Deposits of uranium are report to exist.

Most of the Mexican mining properti are foreign-owned, and the industry

lining in relative importance. The oil-ds, lying along the east coast, were zed by the government in 1938, but er the foreign owners were indemnified. ere are 15 refineries with daily capacity 250,000 barrels. Production in the year 4 was 83,654,000 barrels. Reserves are ited.

rests. Mexico's forests are of consid-ble importance; they include pine, oak, mahogany, red and white cedar and mavera. Resins, turpentine and vege-le wax are also produced. Yucatán pro-ces nearly all of the world's chicle, the ce of the sapodilla tree, used as the base chewing gum.

mate. Partly in the torrid and partly the north temperate zone, Mexico has ee distinct climate regions. From the sts inland to the plateau it is tropical, th temperatures sometimes topping 100°, t averaging from 77° to 82°. The plateau sub-tropical with an average of 75°, and e mountains, over 6,000 feet, average 60°. the east coast the annual rainfall metimes reaches 100 inches, while in wer California rain hardly ever falls. infall on the plateau is 20 to 40 inches a ar, comparable to that of the west central ited States. In Mexico City the coldest nths are December and January (about °); the warmest, April and May (65°). e wet season extends from April to Sep-nber.

Monaco (Principality)

Area: .59 square mile (375 acres).
Population (census 1951): 20,202.
Density per square mile: 34,240.7.
Ruler: Prince Rainier III.
Principal and only cities (census 1951): naco, 1,860; La Condamine, 9,858; Monte rlo, 8,484.
Monetary unit: French franc.
Language: French.
Religion: Roman Catholic.

A tiny, hilly wedge driven into the ench Mediterranean coast nine miles st of Nice, Monaco is a little land of easure with a tourist business that runs high as 1,500,000 visitors a year. Monaco d popular gaming tables as early as 56. Five years later, a 50-year concession operate the games was granted to Fran-is Blanc, of Bad Homburg. This conces-n passed into the hands of a private mpany in 1898.

The Phoenicians, and after them the eeks, had a temple on the Monacan adland honoring Hercules. From *Monoi-s*, the Greek surname for this mytholo-al strong man, the principality took its me. After being independent for 800 ars, Monaco was annexed to France in 93 by the French Revolutionists, and was aced under Sardinia's protection in 1815. 1861, it went under French guardian-ship but continued to be an independent country.

Prince Albert of Monaco gave the principality a Constitution in 1911, creating a National Council of 18 members popularly elected for four years. The government is under a ministry, acting on the Prince's authority. The ruler, Prince Rainier III, born May 31, 1923, succeeded his grandfather, Louis II, on the latter's death, May 9, 1949.

Mongolian People's Republic (Outer Mongolia) (Republic)

Area: 606,000 square miles.
Population (est. 1953): 910,000 (Mongol, except for about 100,000 Russians and 50,000 Chinese).
Density per square mile: 1.5.
Prime Minister: Y. Tse Den-bal.
Principal city (est. 1951): Ulan Bator Khoto (Urga), 80,000 (capital).
Monetary unit: Tugherik.
Languages: Mongolian, Russian.
Religion: Lama-Buddhism.

HISTORY AND GOVERNMENT. The Mongolian People's Republic, known also as Outer Mongolia, is a Russian satellite that measures more than twice the area of Texas. It contains the original homeland of the historic Mongols, whose power reached its zenith during the 13th century under Kublai Khan. The area accepted Manchu rule in 1689, but after the Chinese Revolution of 1911 and the fall of the Manchus in 1912, the northern Mongol princes expelled the Chinese officials and declared independence under the Khutukhtu or "Living Buddha." In 1921, Soviet troops entered the country and facilitated the establishment of a republic by Mongolian revolutionaries in 1924 after the death of the last Living Buddha. China, meanwhile, continued to claim Outer Mongolia but was unable to back the claim with any strength. Under the Chinese-Russian Treaty of 1945, China agreed to give up Outer Mongolia, which, after a rigged plebiscite, became nominally independent.

The government of the republic is strikingly similar to the Soviet system. The Great Hural or Huruldan (parliament) is elected by universal suffrage, meets at least once in three years and picks 30 members to act as an executive committee —the Little Hural—which in turn selects a presidium of seven members as an interim body. A Cabinet of ten ministers appointed by the Little Hural governs the country.

SOCIAL AND ECONOMIC CONDITIONS. A number of young Mongols are regularly sent to the U.S.S.R. for technical training. In 1952, there were said to be 400 primary and seconday schools, 14 technical schools and 21 higher-education institutions.

The country is largely pastoral. There are few areas suitable for crop growing, but some millet, rye and wheat are produced. Most of the people are essentially nomadic or seminomadic; flocks and herds remain the chief source of wealth.

There are a few industrial enterprises. All land, natural resources, factories, mines, hay-making stations and public utilities are nationalized.

Foreign trade, a state monopoly, is carried on mainly with the Soviet Union, but also with Communist China. The leading exports are livestock, wool, hides, animal hair, meat and furs.

NATURAL FEATURES AND RESOURCES; CLIMATE. The productive regions of Outer Mongolia—a tableland ranging from 3,000 to 5,000 feet in elevation—are in the north, which is well drained by numerous rivers, including the Kerulen, Tola, Orkhon and Selenga.

Reserves of 500,000,000 tons of coal are said to exist in the Nalaikha field near Ulan Bator Khoto. Some gold is mined. Deposits of antimony, copper, iron ore, lead graphite, mercury, sulfur and silver exist.

The climate is continental, with hot summers and cold winters. Mean temperature at Ulan Bator Khoto is 15° in January and 64° in July. Rainfall is light throughout the country, and is almost negligible in the Gobi Desert in the southeast.

Morocco (Protectorate)

(Maroc)

Area: 161,691 square miles (French 153,870; Spanish 7,589; Tangier 232).

Population (est. 1952): French Morocco, 9,140,000; (1950): Spanish Morocco, 1,398,000; Tangier, 111,000.

Sultan: Moulay Mohammed ben Arafa.

French Resident General: Gilbert Grandval.

Spanish High Commissioner: Lt. Gen. Rafael García Valino.

Administrator of Tangier: R. de Kerchove d'Hallebast.

Principal cities (census 1951–52): Casablanca, 682,388 (chief seaport); Marrakesh, 245,312 (trading center); Fez, 179,372 (commercial center); Rabat, 156,209 (French administrative center); Tetuán (est. 1945), 93,658 (Spanish administrative center).

Monetary units: French franc, Spanish peseta.

Languages: Arabic, French, Spanish.

Religions: Chiefly Mohammedan.

HISTORY. Morocco, about the size of California, is just south of Spain across the Strait of Gibraltar and looks out on the Atlantic from the northwest shoulder of Africa. It was once the home of the Berbers, who helped the Arabs invade Spain in A.D. 711 and then revolted against them and gradually won control of large areas of Spain for a time after 739.

The country was ruled successively by various native dynasties and maintained regular commercial relations with Europe even during the 17th and 18th centuries when it was the headquarters of the famous Salli pirates. In the 19th century clashes with the French and Spanish became frequent. Finally, in 1904, France and Spain divided Morocco into zones of French and Spanish influence, and these were established as formal protectorates in 1912.

Meanwhile, Morocco had become the object of big-power rivalry, which almost led to a European war in 1905 when Germany attempted to gain a foothold in the rich mineral country. By terms of the Algeciras Conference (1906), Morocco was internationalized economically and France's privileges were limited. War again seemed imminent in 1911, when Germany dispatched a warship to Agadir in an evident attempt to intimidate France. Again the dispute was settled, however, and this time Germany recognized France's right to establish a protectorate over Morocco.

The Tangier Statute, concluded by Britain, France and Spain in 1923, created an international zone at the port of Tangier permanently neutralized and demilitarized. In World War II, Spain occupied the zone ostensibly to insure order, but was forced to withdraw in 1945, and the international rule was re-established.

The French zone in Morocco was under the Vichy government of France during part of World War II, but three days after the Allied landing in North Africa in 1942 it came under Allied control.

Sidi Mohammed ben Youssef, Sultan since 1927, was ousted by the French on Aug. 20, 1953, and replaced by his uncle Moulay Mohammed ben Arafa. Anti-French rioting broke out at Casablanca in 1955.

GOVERNMENT. Morocco nominally is an absolute monarchy under a Sultan, but actually the French Resident General at Rabat and the Spanish High Commissioner at Tetuan direct Moroccan policies to a large extent. The Sultan lives in the French zone, and delegates authority to representatives in the Spanish zone and Tangier.

Tangier is governed by an International Administration and a Council of Control composed of the Consuls General of the signatories to the Act of Algeciras.

SOCIAL AND ECONOMIC CONDITIONS. Most of the natives are illiterate; some get rudimentary education in Koranic schools or state-maintained institutions. Education is provided in both zones for Europeans.

The natives are Berbers, roughly divided by customs and way of life into three groups—the Riff group along the coast, the

ntral or Berber group in the mid-Atlas ountains, and the southern or Chleuh in e high Atlas and the Sus. There is a rge Jewish population. Most of the Euro-ans live in the cities.

Morocco is essentially agricultural. In e French zone, about 25,000,000 acres are able, with 1954 production of wheat ming to 1,108,000 metric tons; of barley, 737,000 tons. Corn, beans, peas, hemp, rghum, citrus fruits and dates also are ised. Production of olives in 1952 was ,000 tons. In 1952 there were 13,923,000 eep and 2,135,000 cattle.

In the Spanish zone, agriculture is rgely undeveloped, but it has potential nportance. Barley, wheat, maize and sor-hum crops are the most important.

Manufacturing industries introduced by uropeans, mostly small, produce chemi-ls, flour, leather, stone, beverages and xtiles. Native industries include carpet eaving and making Turkish slippers.

Exports from the French zone in 1954 otaled 99,898,000,000 fr.; imports, 168,031,-00,000 fr. Chief exports were phosphate 20%), barley (9%), fish (6%), wheat nd manganese. France took 42% of the xports and supplied 54% of the imports, hich included sugar, vehicles, petroleum roducts, cotton cloth and tea. Exports rom the Spanish zone in 1951 totaled 00,500,000 pesetas and imports 808,400,000 esetas. A large proportion of the trade is arried on with Spain. Major exports are ron ore, fish and grain; imports include our, sugar, tea, wine and textiles. Tan-ier's exports in 1954 were 2,515,102,000 fr.; nports were 11,156,296,000 fr.

Railroads in 1951 totaled 984 miles in he French zone and 57 miles (standard auge) in the Spanish zone. Highway mile-ge in the same year was approximately ,425 in the French zone, about 540 in the panish zone and 65 in Tangier. Casa-lanca, which handles 80 per cent of the rench zone trade, has perhaps the world's argest artificial port.

Exploitation of French Morocco's almost nexhaustible deposits of phosphate is a tate monopoly and produced a total of ,020,000 metric tons in 1954. Other major inerals are coal, cobalt, iron ore, man-anese ore, molybdenum, tin, zinc and ead. Iron ore (1953: 931,200 metric tons) ; the chief mineral of the Spanish zone; thers are antimony and manganese.

ATURAL FEATURES; CLIMATE. On the tlantic coast is a fertile plain; the editerranean coast is mountainous, mak-ng most of the Spanish zone a rugged rea. The Atlas Mountains, running north-astward from the south to the Algerian rontier, average 11,000 feet in elevation.

Morocco's climate is essentially Mediter-anean, modified by the Atlantic. On the Atlantic coast the temperatures are relatively cool (at Mogador, 61.5° in January and 72.3° in August). Inland the climate is more continental, with colder winters and hotter summers (at Fez, 50° in January, 80.6° in August). Rainy seasons are in October-November and April–May (38 inches annually at Tangier, 22 at Rabat, 17 at Casablanca, 11 at Mogador).

Nepal (Military Oligarchy)

Area: c.54,000 square miles.
Population (est. 1953): 8,596,000 (Gurkha [predominant], Magar, Gurung, Bhotia [Tibetan], Newar).
Density per square mile: approx. 159.2.
Ruler: Mahendra Bir Bikram.
Prime Minister: M. P. Koirala.
Principal city and capital: Katmandu (estimated population, 108,800).
Monetary unit: Nepalese rupee.
Languages: Parbatia, Gubhajius, Tibetan.
Religions: Hinduism, Buddhism.

HISTORY. A landlocked country about the size of Iowa, lying between the Republic of India and Tibet, Nepal has two great distinctions. It contains Mt. Everest, 29,-141 feet high, the tallest measured mountain in the world. And it produces some of the toughest fighting men in the world —the Gurkhas.

Led by Rajah Prithwi Narayana, the Gurkhas invaded Nepal from India in 1768 and conquered it. A commercial treaty was signed with Britain in 1792, and in 1816, after more than a year's hostilities, the Nepalese agreed to allow British residents to live in Katmandu, the capital. In 1923 Britain recognized the absolute independence of Nepal. The United States and Nepal signed a treaty of friendship and trade on April 25, 1947. King Tribhubana was deposed on Nov. 7, 1950, but was returned to the throne with Indian assistance on Feb. 15, 1951. On his death Mar. 13, 1955, his son Mahendra became ruler.

Nepalese troops assisted the British during the Indian Mutiny, the Tibet War of 1904, World War I, the Afghan hostilities of 1919, and World War II.

GOVERNMENT. Until 1951, real power was vested in the Prime Minister, nominated by special rules from among the royal family. The King now appoints the Prime Minister and Cabinet members, who are responsible to him. The first commoner Prime Minister, M. P. Koirala, took office in Nov. 1951. The King took over the government himself for a period in 1952–53.

The predominant Gurkhas are essentially a military caste. The army numbers about 20,000 regulars and 25,000 reserves. More than 100,000 Gurkha volunteers fought with the Indian Army in the Burma campaign of World War II.

ECONOMIC CONDITIONS. Cultivated and irrigated where possible, the main valley of Nepal grows rice, wheat, pulse, fruits, vegetables, spices, sugar cane and potatoes. A few sheep and cattle are grazed. Manufacturing is limited to native handicraft, but jute and textile mills are being established. Trade with India and Pakistan passes through various frontier stations, and there are two mountain trade routes to Tibet.

Main exports include hides, skins, opium, gums, resins, dyes, jute, wheat, pulse, rice, spices and timber. Two railroads enter Nepal for short distances—one from Raxaul, India, to Amlekhganj, the other from Jayauagar to Bijulpura. Transportation is for the most part difficult. A 79-mi. motor road between Katmandu and Raxaul, India, was opened in Dec. 1953.

NATURAL FEATURES AND RESOURCES; CLIMATE. Along its southern border, Nepal has a strip of level land which is partly forested, partly cultivated. North of that is the slope of the Himalayan Range, including Mt. Everest (29,141 ft.), which was climbed for the first time in 1953, and many peaks higher than 20,000 feet. Mineral resources, nearly all unexploited, include lignite, copper, zinc, lead, sulfur, marble and iron. Southern Nepal has valuable forests which yield gum, timber, resin and dye. Hemp plants grow wild. Mean temperature is 60°, with the hot season from April to June. Most of the rainfall occurs from June to October.

Netherlands (Kingdom)

(Koninkrijk der Nederlanden)

Area: 12,868 square miles.*

Population (est. Jan. 1, 1955): 10,680,023 (practically all Dutch).

Density per square mile: 830.0.

Sovereign: Queen Juliana.

Prime Minister: Willem Drees.

Principal cities (est. 1955): Amsterdam, 863,802 (capital, financial center); Rotterdam, 712,513 (chief port); The Hague ('s Gravenhage), 596,675 (seat of government); Utrecht, 243,884 (railway center); Haarlem, 166,154 (tulip center); Eindhoven, 151,742 (industrial center).

Monetary unit: Guilder.

Language: Dutch.

Religions (census 1947): Roman Catholic, 38.5%; Dutch Reformed, 31.0%; other Protestant, 13.3%; Jewish, 0.2%; others and no creed, 17.0%.

* Excluding waterways and bodies of water larger than 185 acres.

HISTORY. Julius Caesar found the low-lying Netherlands inhabited by Germanic tribes, the Nervii, Frisii and Batavi. The Batavi on the Roman frontier did not submit to Rome's rule until 13 B.C., and then only as allies. A part of Charlemagne's empire in the 8th century A.D., the area later passed into the hands of Burgundy and the Austrian Hapsburgs and finally in the 16th century came under Spanish rule. When Philip II of Spain suppressed political liberties and the growing Protestant movement in the Netherlands, a revolt led by William of Orange broke out in 1568. Under the Union of Utrecht in 1579, the seven northern provinces became the Republic of the United Netherlands.

The Dutch East India Company had been established in 1602, and by the end of the 17th century Holland was one of the great sea and colonial powers of Europe.

Following Napoleon's defeat, the United Netherlands and Belgium became the "Kingdom of the United Netherlands" under William I, son of William V and head of the House of Orange. The Belgians withdrew from the union in 1830, forming their own kingdom. William I abdicated in favor of William II in 1840; the latter was largely responsible for the promulgation of a liberal Constitution in 1848.

The Netherlands continued to prosper during the long reign of William III from 1849 to 1890. The male line of the House of Nassau became extinct with his death in 1890 and he was succeeded by his 10-year-old daughter, Wilhelmina, who was crowned Queen in 1898.

Neutrality was maintained during World War I, but overseas trade suffered heavily from the Allied blockade and German submarine warfare. At the outbreak of World War II neutrality was again proclaimed, but German troops invaded the country May 10, 1940, and by May 15, Dutch forces were ordered to lay down their arms. Queen Wilhelmina and Crown Princess Juliana fled to London, where a government-in-exile was established under Prime Minister P. S. Gerbrandy.

The German army in the Netherlands capitulated May 5, 1945, and on May 23 the Dutch government met once more in The Hague. Queen Wilhelmina abdicated after her fiftieth anniversary as ruler on Sept. 6, 1948, and was succeeded by Juliana her only daughter.

The Labor party gained a plurality in elections held in June 1952, and Drees continued as Prime Minister at the head of a coalition government.

RULER. Queen Juliana, who was born April 30, 1909, was married on Jan. 7, 1937 to Prince Bernhard of Lippe-Biesterfeld (born in 1911). They have four daughters: Beatrix, heiress apparent (born Jan. 31, 1938); Irene (born 1939); Margriet Francisca (born 1943), and Maria Christina (born 1947).

GOVERNMENT AND DEFENSE. The Netherlands is a constitutional and hereditary monarchy, with female succession taking place only in default of male heirs.

Executive power is vested exclusively in the sovereign, while legislative power rests with the sovereign and the States-General (Parliament). The upper chamber of Parliament, with 50 members, is elected for 6 years by the provincial states. The lower chamber, which shares with the government the privilege of initiating new bills and proposing amendments, consists of 100 deputies who are elected directly for four years and retire *en bloc*. Executive power is exercised in part by responsible ministers, headed by the Prime Minister and holding office at the pleasure of the sovereign. Suffrage is universal for all Dutch subjects of 23 years of age. The party standing in the lower chamber (elections of June 1952) is as follows: Catholic 30, Labor 30, Anti-Revolutionary 12, Christian Historical Union 9, Freedom and Democracy 9, Communist 6, others 4.

Each of the eleven provinces has a local representative body—a Provincial State—presided over by a Royal Commissioner. Each of the 1,014 communes has a locally elected Council and a Mayor appointed by the Crown.

Defense. Military service is compulsory. The army had about 175,000 men in 1949, and the air force 300 planes. In Dec. 1954 the navy had 1 fleet carrier, 4 light cruisers, 7 destroyers, 7 submarines, 17 frigates and escort vessels.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Education is compulsory from the ages of 7 to 13; illiteracy is almost unknown. In 1952–53, elementary schools numbering 7,328 (of which 4,903 were private) had a total enrollment of 1,323,437; 1,319 secondary schools had 226,320 pupils. The 6 universities and 4 *hogescholen* (vocational colleges) had 28,206 students. The 4 public universities are at Leyden, Utrecht, Groningen and Amsterdam; the 2 private universities are the Calvinist University of Amsterdam and the Roman Catholic University of Nijmegen.

Agriculture. Dutch farms are characteristically small, with only a few larger than 250 acres. Wheat (397,000 metric tons in 1954), barley (207,800 tons), rye (515,400 tons), oats (466,600 tons), potatoes (3,999,100 tons) and sugar beets (3,061,900 tons) are grown, but dairying is more important. In 1954 there were 3,026,000 cattle, 1,974,500 hogs, 407,300 sheep and 241,500 horses. Production of cheese (1954: 147,072 metric tons), milk (5,863,000 tons), butter (81,589 tons) and eggs (287,500,000 doz.) is under state control. Large quantities of vegetables and fruits are raised for export. Almost as important as the dairy industry is the raising of tulip, hyacinth and other flower bulbs in the area around Haarlem. Net value of agricultural and horticultural production in 1953–54 was 5,108,000,000 guilders.

Industry. The Netherlands is a highly industrialized nation, utilizing both overseas raw materials and domestic agricultural products. In 1954 there were about 10,400 larger industrial enterprises employing 945,300 workers with gross production valued at 21,781,900,000 guilders. Leading industries are textiles, clothing, shipbuilding, shoes, food, and building materials.

The Netherlands ranks high among the world's shipbuilding nations; 135 vessels of 545,325 gross tons were under construction on March 31, 1955. Production of pig iron in 1954 was 610,500 metric tons; steel, 927,600 tons. Amsterdam is one of the world's leading diamond-cutting centers.

Trade. Trade statistics, in millions of guilders (excluding parcel post, specie and diamonds) are as follows:

	1952	1953	1954
Exports	8,007.0	8,059.9	9,058.9
Imports	8,511.4	8,944.9	10,688.1

Principal customers in 1954 were western Germany (16%), Belgium (14%), Britain (11%), the U. S. (6%) and Sweden (4%). Leading suppliers were Belgium (17%), western Germany (16%), the U. S. (12%), Britain (8%) and Indonesia (5%). The chief exports were dairy products and eggs (12%), machinery and apparatus (10%), petroleum products (8%), fabrics and clothing (7%) and vehicles and ships (6%). Leading imports were machinery, iron and steel and manufactures, petroleum and products, cereals and flour and fabrics and clothing.

Communications. The Dutch merchant marine had 1,320 seagoing vessels of 3,374,367 gross tons on Jan. 1, 1955—the eighth largest fleet in the world. An extensive network of rivers expanded by many canals has led to extensive development of inland shipping. The length of navigable canals and rivers is almost 5,000 miles. River ships and barges numbered 15,428 on Jan. 1, 1955, with a total deadweight tonnage of 4,160,469. In 1954, 95,217,000 metric tons of freight were carried on rivers and canals. The wealth of water transport has obviated the need for wide railway development. In 1952, there were 2,095 miles of railway, all operated by a government-owned company, and, in 1953, 5,170 miles of primary and secondary highways.

Air service is provided by Royal Dutch Airlines (KLM), which flew 35,583,300 miles on 94 routes in 1954 and carried 683,000 passengers.

Finance. Recent financial data are as follows (in millions of guilders):

	1953*	1954†	1955‡
Revenue	6,232	6,390	6,045
Expenditure	6,377	7,231	6,613

* Provisional. † Revised budget estimate. ‡ Preliminary budget estimate.

The national debt on Dec. 31, 1954, including debt to the Netherlands Bank and war damage obligations, totaled 20,761,000,000 guilders.

NATURAL FEATURES AND RESOURCES; CLIMATE. Part of the great plain of north and west Europe, the Netherlands has maximum dimensions of 190 by 160 miles and is low and flat except in Limburg in the southeast, where some hills rise to 300 feet. About half the country's area is below sea level, making the famous Dutch dikes a requisite to use of much land. Reclamation of land from the sea through dike-building has continued through recent times.

All drainage reaches the North Sea, and the principal rivers—Rhine, Maas (Meuse) and Schelde—have their sources outside the country. The Rhine is the most heavily used waterway in Europe.

Netherlands minerals are few. The only important ones are coal (12,071,500 metric tons in 1954), crude petroleum (6,550,000 barrels), lignite (171,900 tons) and salt. There also are peat swamps and about 630,000 acres of forest. The Netherlands fishing fleet made a catch of 286,900 metric tons valued at 87,900,000 guilders in 1954. Herring (149,500 tons) was the most important item.

Marsh mists, dense sea fogs and a humidity exceeding 80 per cent mark the Netherlands climate. Winters are colder than in eastern England at the same latitude. Utrecht, roughly central in location, has a January average temperature of 34.2° and a July average of 62.6°. Average rainfall for the country is about 28 inches. July–Sept. is the wettest period.

NETHERLANDS OVERSEAS TERRITORIES

NETHERLANDS ANTILLES — Status: Part of the United Kingdom of the Netherlands.
Area: 403 square miles.
Population (est. 1954): 179,000.
Capital: Willemstad (pop. 1951: 48,000).
Governor: A. A. M. Struycken.
Prime Minister: M. F. da Costa Gomez.
Foreign trade (1953): exports, 1,248,426,000 florins; imports, 1,387,414,000 florins. Chief export: petroleum products (more than 95 per cent).
Agricultural products: aloes, beans, corn.
Manufactures: refined petroleum, straw hats.
Mineral products: lime phosphate, salt.

This comprises two groups of Caribbean islands 500 miles apart; one, about 40 miles off the Venezuelan coast, consists of Curaçao (210 sq. mi.), Bonaire (95 sq. mi.) and Aruba (69 sq. mi.); the other, lying to the northeast, consists of 3 small islands with a total area of 29 square miles. The Dutch acquired the island of Curaçao from Spain in 1634 and have held it since, except for short intervals during the Napoleonic Wars.

The Governor is assisted by an all-native Legislature and Cabinet. The area has complete autonomy in domestic affairs.

The economy of the Netherlands Antilles is based almost entirely on the refining at Curaçao and Aruba of crude petroleum, which comes chiefly from the adjacent Maracaibo fields in Venezuela.

Dutch is the official language, but many inhabitants speak a patois known as Papiamento, a mixture of Spanish, Dutch, English, Portuguese, native and other words.

The island of Curaçao has a torrid climate, with average temperatures of 79° in January and 83° in September. Rainfall is light, averaging only 16 inches annually. It occurs mostly in the October–January period.

SURINAM (Dutch Guiana)—Status: Part of the United Kingdom of the Netherlands.
Area: 54,291 square miles.
Population (est. 1954): 234,000.*
Capital: Paramaribo (pop. 1951: 78,000).
Governor: J. Klaasesz.
Prime Minister: A. Curie.
Foreign trade (1953): exports, 49,124,000 Surinam guilders; imports, 54,256,000 guilders. Chief export: bauxite (82%).
Agricultural products: rice (1953: 58,000 metric tons), sugar, coffee.
Minerals: bauxite (1953: 3,273,000 metric tons), gold (204 kg.).
Forest products: balata (1953: 64 metric tons), timber.

* Including aborigines, numbering about 25,000.

Surinam lies in northeastern South America between British and French Guiana. It was received by the Dutch from England at the Peace of Breda (1667) in exchange for New York and at that time included British Guiana, which was seized by England in 1803 and formally ceded to her at the conclusion of the Napoleonic Wars.

The Governor of Surinam (appointed by the Crown) is assisted by an all-native Legislature and Cabinet, which have sole responsibility in all matters relating to domestic affairs.

Mining is the most important activity, and only about 65,000 acres are devoted to agriculture. The largest bauxite mines are owned by Aluminum Company of America subsidiaries. In 1946 a company was formed to work 10,000,000 acres of the area's vast, but almost inaccessible, hardwood forests.

In 1948 the heterogeneous population included 2,100 Europeans, 2,560 Chinese, 22,000 Djukas (descendants of escaped slaves), 3,700 aboriginal Indians, 81,750 Negroes and mulattoes, as well as 97,000 Indian and East Indian laborers brought in after the abolition of slavery in 1863 to work the sugar plantations.

From its settled coastal plain, Surinam ıns back to a virtually unexplored moun-ın and jungle area along the Brazilian order. Rivers are the chief means of ıterior travel. The climate is tropical ıroughout but is modified by the north-ast trade winds. Yearly range of tempera-ıre is approximately 70.5°–90°.

NETHERLANDS NEW GUINEA—Status: art of the United Kingdom of the Nether-ınds.
Area: 151,789 sq. mi.
Population (est. 1953): 750,000.
Capital: Hollandia (pop. 1951: 32,000).
Governor: Jan van Baal.
Agricultural products: sago, coconuts, ugar cane, sweet potatoes.
Minerals: petroleum (1953: 2,075,000 arrels), nickel, chrome.

The western part of New Guinea, second ırgest island of the world, with smaller djacent islands, forms part of the king-om of the Netherlands. The area re-ıained Dutch upon the transfer of sov-reignty in Indonesia in Dec. 1949, with he understanding that its status would e determined within one year by nego-iation between the Netherlands and Indo-ıesia. Subsequent negotiations did not ead to any agreement.

Dutch influence dates back to the activ-ties of the Dutch East India Company in he 17th century. In 1828, the Dutch gov-rnment declared Northwest New Guinea art of the Dutch East Indian colonies, nd the area was administered as part of he Netherlands Indies until 1949.

The Papuans are the dominant stock; here are also Melanesian and Negrito ele-nents. There were about 8,000 Europeans, ,000 Indonesians and 1,700 other Asiatics chiefly Chinese) in 1953. Production of petroleum began in 1948 at oilfields in he Vogelkop region (Berau Penin) on the western tip of the island. Except for this, commerce and industry are almost un-known, and life is primitive, with head-unting and cannibalism not unknown even today.

Nicaragua (Republic)

(República de Nicaragua)

Area: 57,143 square miles.*
Population (est. 1954): 1,202,000 (1943: mestizo, 69%; white, 17%; Negro, 9%; Indian, 5%).
Density per square mile (land only): 21.0.
President: Anastasio Somoza.
Principal cities (census 1950†): Managua, 109,352 (capital); León, 30,544 (trading center); Granada, 21,035 (trading center); Chinandega, 13,146 (sugar).
Monetary unit: Córdoba.
Language: Spanish.
Religion: Roman Catholic.

* Including inland water area of 3,475 square miles.
† Urban population of municipios.

HISTORY. Nicaragua was first visited by the Spaniards in 1522. The chief of the country's leading Indian tribe at that time was called Nicaragua, from whom the nation derived its name. The country was part of Spanish Guatemala until the general Central American revolution in 1821. Upon the dissolution of the Central American Union in 1838, Nicaragua established itself independently. A United States naval force intervened in 1909 after two American citizens had been executed, and a few U. S. Marines were kept in the country from 1912 to 1925. The Bryan-Chamorro Treaty of 1916 gave the United States an option on a canal route through Nicaragua, and naval bases in the Gulf of Fonseca on the Pacific coast and on Corn Islands on the Atlantic side. Disorder after the 1924 elections brought in U. S. Marines again, but they were withdrawn gradually after the U. S.-supervised elections of 1928, although sporadic fighting continued between government troops and rebel forces under General Augusto Sandino. General Anastasio Somoza was elected President in Dec. 1936, and took office again on May 21, 1950, after national elections.

GOVERNMENT AND DEFENSE. The Constitution of 1950 provides for a President popularly elected for six years, and a two-house Congress—a 42-member Chamber of Deputies and a 16-member Senate—both elected for six years. Former Presidents of the republic automatically become Senators. There are sixteen regional departments. Military service is voluntary. The Guardia Nacional, both an army and police force, numbers about 3,500. A naval base built at the Pacific port of Corinto by the U. S. during World War II was turned over to Nicaragua in 1946.

SOCIAL AND ECONOMIC CONDITIONS. Although primary education is free and compulsory, about 60 per cent of the people are illiterate. There is one university and several vocational schools. In 1951–52 there were 1,261 schools of all kinds with 86,764 students. Western Nicaragua, with about 75 per cent of the population, is inhabited principally by mestizos of Spanish and Indian blood, with some whites and Indians. Negroes and Indians are dominant in eastern Nicaragua.

More than half of Nicaragua is jungle-covered; agriculture, the leading industry, utilizes only 10 per cent of the total land. Coffee (production 1954–55 season: 326,000 bags of 132 lbs. each) is the chief crop and grows in the western part, which also produces sugar cane, cacao, sesame, beans, rice, tobacco and corn, the chief subsistence crop. Bananas lead in the eastern part, with cotton second. About 900,000 acres are devoted to livestock grazing. Except for some sugar refining, only locally consumed products are manufactured in Nicaragua.

Recent foreign trade data are as follows (in millions of U. S. dollars):

	1952	1953	1954
Exports*	51.3	54.5	62.8
Imports	39.7	43.6	58.3

* Including gold.

Chief exports in 1953 were coffee (39%), gold (16%), cotton (16%) and logs and lumber (8%). The chief customers were the U. S. (44%), Britain (13%) and Germany (10%); leading suppliers, the U. S. (65%); Germany (8%) and the Netherlands Antilles (6%).

Recent public finance data are as follows (in millions of córdobas):

	1952–53	1953–54*	1954–55†
Revenue	198.3	228.0	258.0
Expenditure	191.6	228.0	258.0

* Revised budget estimate. † Initial budget estimate.

NATURAL FEATURES AND RESOURCES; CLIMATE. Largest but most sparsely populated of the Central American nations, Nicaragua is mountainous in the west, with fertile valleys. A plateau slopes eastward toward the Caribbean.

Two big lakes—Nicaragua, about 100 miles long, and Managua, about 38 miles long—are connected by the Tipitapa River. The Pacific coast is bald and rocky; the Caribbean coast, swampy and indented, is aptly called the "Mosquito Coast."

Gold (exports 1954: 233,145 troy oz.) rivals coffee as the most lucrative export. Exports of silver (1953) were 244,745 troy oz. One-third wooded, Nicaragua produces mahogany, rosewood, cedar, rubber and ipecac root. In 1953 Nicaragua exported 43,778,000 bd. ft. of logs and lumber.

The highlands are generally cool, while the coasts are hot and sultry. The east coast receives up to 100 inches of rain a year. The wet season is generally from May or June through November or December.

Norway (Kingdom)

(Norge)

Area: 125,193 square miles.
Population (est. Dec. 31, 1954): 3,408,000 (Norwegian, 98.7%; Swedish, .8%; others, .5%).
Density per square mile: 27.2.
Sovereign: King Haakon VII.
Prime Minister: Einar Gerhardsen.
Principal cities (est. 1954): Oslo, 447,400 (capital, chief port); (census 1950) Bergen, 112,845 (seaport, shipbuilding); Trondheim, 56,669 (seaport, timber, fish); Stavanger, 50,647 (seaport, fisheries).
Monetary unit: Krone.
Language: Norwegian.
Religions: Evangelical Lutheran (state), 96.8%; others, 3.2%.

HISTORY. Norwegians, akin to Swedes and Danes, are of Teutonic origin. In the 7th and 8th centuries, Vikings from Norway constantly attacked the British Isles, and in the 9th century many of them settled in what are now Ireland and Normandy. Norway became a united kingdom in 872 under King Harald Haarfager. Christianity was introduced in the 10th century by King Olaf I.

Under the rule of Haakon IV (1217–63), Norway reached a peak of power, ruling the Shetland and Orkney Islands, Iceland, Greenland and the Hebrides. In 1319 Norway and Sweden were united under King Magnus VII, and in 1397 Denmark joined this union under Erik of Pomerania.

In 1450 the triple bond gave way to a union in which Norway was closer to Denmark, but the Treaty of Kiel, in 1814 at the end of the Napoleonic Wars, ceded Norway to Sweden. Norway protested and declared itself independent. Sweden thereupon invaded Norway and forced the issue, requiring Norway to recognize the King of Sweden but leaving Norway its own government, army, navy and customs.

After this union was dissolved in 1905, Prince Karl of Denmark was elected King of Norway by the Storting (parliament) and ascended the throne as Haakon VII. During World War I, Norway was able to preserve its neutrality, though it suffered greatly from the Allied blockade and from the loss of many merchant ships. In World War II, Norway was invaded by the Germans on April 9, 1940, and resisted for two months before Nazi control was complete. On June 7, King Haakon and the government fled to London and established a government-in-exile.

Meanwhile, in Norway, a new word was born—quisling. It was derived from Major Vidkun Quisling, a Norwegian traitor who collaborated with the Germans and who was Minister President of the German-sponsored occupation government. Quisling eventually was executed by the Norwegians in Oct. 1945.

King Haakon and the government returned immediately after the German collapse in May 1945, and an interim coalition Cabinet took over, headed by Einar Gerhardsen. The latter's Labor party won a majority in the general elections of Oct. 8, 1945, and an all-Labor Cabinet formed on Nov. 5, 1945, led the nation thereafter.

Despite Soviet pressure, Norway adhered to the North Atlantic Pact in April 1949.

RULER. Haakon VII, born August 3, 1872, second son of Frederick VIII of Denmark, married Princess Maud (born 1869, died 1938), third daughter of Edward VII of England. Their one son—Olaf, Crown Prince, born July 2, 1903—married Princess Märtha of Sweden (1901–1954) on March 21, 1929. Their children are Princess Ragnhild Alexandria (born 1930), Princess Astrid (born 1932) and Prince Harald (born 1937). King Haakon is the uncle of Frederick IX of Denmark.

OVERNMENT AND DEFENSE. Norway is constitutional and hereditary monarchy ith succession in the direct male line. he King's executive power is exercised by Council of State, or Cabinet, consisting the Prime Minister and at least seven her councilors. The 150 members of the torting are popularly elected for a term of years under proportional representation. hen assembled, the Storting divides itelf by election into two sections, the Lagng, composed of one-fourth of the members (38) and the Odelsting, composed of he rest. The Storting has a predominant osition in the government since the Cabnet is responsible to it. Moreover, the ing cannot dissolve it before the expiraion of its term. There is universal suffrage or all citizens, male or female, over 23. arty representation in the Storting (elections of Oct. 12, 1953) is Labor 77; Conervative 27; Liberal 15; Agrarian 14; hristian People's 14; Communist 3.

The Department of Defense serves as a oordinating body for the army, navy and ir force. The army is a national militia ith compulsory service from 18 to 55. rmy strength in 1951 was about 15,000. he navy in Dec. 1954 had 5 fleet detroyers, 8 submarines, 12 frigates and scort vessels and other minor ships.

OCIAL AND ECONOMIC CONDITIONS. Education is compulsory and free from 7 o 14. Illiteracy is almost unknown. In 951–52, elementary schools had enrollnent of 337,420, and secondary schools had 8,308. There are 2 universities—Oslo 3,308 students in 1953) and Bergen (382).

Land suitable for cultivation, estimated t less than 5 per cent of the total area, onsists of strips in the deep narrow valeys and around fiords and lakes. Foodtuff production is insufficient to meet domestic needs. Leading crops, with 1954 roduction in metric tons, are wheat, 43,000; barley, 233,000; oats, 159,000; potatoes, 1,249,000; hay and fodder. The ountry is more adapted to stock raising han to crop growing; in 1954, there were 1,180,894 cattle, 1,952,016 sheep, 405,804 hogs and 122,693 goats.

Raw materials produced in Norway form the basis of most of the manufactures. Leading industries are food, machinery, metals, wood, paper and electro-chemicals. On Mar. 31, 1955, 52 vessels of 206,630 gross tons were under construction in Norwegian yards.

Statistics of foreign trade are as follows, in millions of kroner:

	1952	1953	1954
Exports	4,039	3,633	4,163
Imports	6,239	6,514	7,276

In 1954 the leading suppliers were Britain (20%), Sweden (16%), western Germany (15%) and the U. S. (8%). Leading customers were Britain (19%), western Germany (10%), Sweden (10%) and the U. S. (9%). Chief exports: pulp and paper and manufactures (24%), ores and metals and manufactures (21%), fish (16%).

The normally adverse trade balance is offset to some extent by invisible exports, particularly the earnings of the large merchant marine.

Norway is one of the greatest seafaring nations, and its merchant marine of 2,288 vessels (100 tons and over) of 6,806,004 gross tons (June 30, 1954) is the third largest in the world. The long Norwegian coast line and the difficulties of inland transportation make coastal shipping important. In 1953 there were 2,732 mi. of railway; (1952) 28,734 mi. of highway.

Recent public finance data are as follows, in millions of kroner:

	1953–54	1954–55*	1955–56†
Revenue	4,330	4,147	4,471
Expenditure	4,623	4,438	4,471

* Voted budget. † Budget estimate.

The public debt on Dec. 31, 1954, was 5,814,777,639 kr.

NATURAL FEATURES AND RESOURCES; CLIMATE. Nearly 70 per cent of Norway is uninhabitable and covered by mountains, glaciers, moors and rivers. Its extreme length from the Skagerrak to North Cape—Europe's most northerly point, far above the Arctic Circle—is about 1,100 miles. Breadth averages 60 miles, with a maximum of 260. The hundreds of deep fiords that cut into Norway's coast line give it an over-all ocean front of more than 12,000 miles. Islands off the coast, numbering almost 150,000, form a breakwater and make a safe coastal shipping channel. The Lofoten and Vesterålen Islands, off the northwest coast, have an area of about 1,560 square miles.

Mineral resources are extensive, but coal deposits are entirely lacking except in Spitsbergen. Important minerals (1954 production in metric tons): iron ore, 1,080,000; aluminum, 64,100; pyrite ore, 790,000; zinc, 44,400; and copper ore, molybdenum ore, tungsten, antimony ore, tin, silver.

Cheap electric power, produced mainly by hydroelectrical plants (average monthly production 1954: 1,820,000,000 kwh.), makes possible the extraction of nitrogen from the air and manufacture of potassium nitrate, an important fertilizer.

The forests, largely in the south and southeast, are one of the chief natural resources. About 25 per cent of the total area is covered with forests, of which 70 per cent is pine. Timber production in the 1953–54 season was about 7,500,000 cu. m. Production of newsprint in 1954 was 164,000 metric tons; other paper, 349,000 tons; chemical pulp, 590,000 tons; mechanical pulp, 644,000 tons; pulpwood, 4,900,000 cu. m.

Fishing is one of the principal industries, engaging as many as 100,000 persons annually. A large number of the best European food fisheries are situated along the coast. The 1954 catch totaled 1,864,400 metric tons valued at 545,600,000 kr. Norwegians are the world's leading whalers and were the first to develop pelagic (open sea) whaling. Whale oil production in the 1953–54 season was 1,042,000 barrels.

The Gulf Stream affects the climate mildly. Summer temperatures range from about 50° in the extreme north to 60.6° at Oslo in July. February temperatures in Oslo average 24°, against 11° to –12° in the north. Norway is one of the lands of the midnight sun; in the extreme north for many weeks in the summer the sun never sets, and for an equal time in the winter the sun does not rise. Rainfall is heavy on the coast but decreases sharply inland.

OUTLYING TERRITORIES

SPITSBERGEN (SVALBARD).

This arctic archipelago, with an area of approximately 25,000 square miles, lies about 400 miles north of Norway and consists of West Spitsbergen (15,200 sq. mi.), North-East Land (about 6,000 sq. mi.), Edge Island (2,500 sq. mi.), Barents Island (580 sq. mi.), and several small islands including Bear Island. The group was probably discovered by Norwegians in A.D. 1194 and rediscovered by the Dutch navigator Barents in 1596. The question of sovereignty was long unsolved. By a treaty signed with the disputing nations on Feb. 9, 1920, however, Norwegian sovereignty was recognized, and Norway declared the area a part of the kingdom Aug. 14, 1925. Spitsbergen was occupied by Allied forces in the summer of 1941. Soviet proposals for establishment of joint military bases were rejected by Norway in Feb. 1947.

In the 18th and 19th centuries, Spitsbergen was a whaling center, but now the only important product is coal (1954 exports: 550,000 metric tons). Population (1950) 3,600, largely miners, none indigenous.

JAN MAYEN ISLAND.

This arctic island (144 sq. mi.), lying between Greenland and the north of Norway, was discovered by Henry Hudson in 1607. It was annexed to Norway May 8, 1929. A Norwegian weather station was established in 1921, and during World War II a U. S. Navy weather station was maintained on the island. It is otherwise uninhabited.

OTHER TERRITORIES. Norway also exercises sovereignty over Bouvet Island (22 sq. mi.) in the South Atlantic, Peter I Island (94 sq. mi.) in the Antarctic Ocean, and that part of the Antarctic continent lying between 20 degrees and 45 degrees east. All are uninhabited.

Outer Mongolia. See Mongolian People's Republic

Palestine. See Israel; Jordan

Panamá (Republic)

(República de Panamá)

Area: 28,575 square miles.
Population (est. July 1, 1955): 911,400 (1940: mestizo, 65.34%; Negro, 13.31%; white, 11.07%; Indian, 9.53%; others, .75%).
Density per square mile: 31.9.
President: Ricardo Arias Espinosa.
Principal cities (census 1950): Panamá City, 127,874 (capital and chief port); Colón, 52,204 (chief Caribbean port); Ciudad David, 14,847 (bananas).
Monetary unit: Balboa.
Language: Spanish (official).
Religion: Roman Catholic, 93%; Protestant, 6%; others, 1%.

HISTORY. Visited by Columbus in 1502 on his fourth voyage and explored by Balboa in 1513, Panamá was the principal transshipment point for Spanish treasure and supplies to and from South and Central America in colonial days. In 1821, when Central America revolted against Spain, Panamá joined Colombia, which already had declared its independence. For the next 82 years, Panamá attempted unsuccessfully to break away from Colombia. After U. S. proposals for canal rights over the narrow isthmus had been rejected by the Colombian Senate, Panamá proclaimed its independence with U. S. backing in 1903. U. S. Marines restrained Colombian intervention.

For canal rights in perpetuity, the United States paid Panamá $10,000,000, and agreed to pay $250,000 each year, increased to $430,000 after devaluation of the U. S. dollar in 1933 and to $1,930,000 under a revised treaty signed Jan. 25, 1955. In exchange, the United States got the Canal Zone, a ten-mile-wide strip across the isthmus, and a considerable degree of influence in Panamanian affairs.

During World War II the U. S. was granted the right to establish a number of bases in Panamá. All were evacuated in 1948 after the Assembly rejected a 10-year lease agreement on Dec. 22, 1947.

GOVERNMENT. Under the 1946 Constitution, the Assembly and the President are elected for 4-year terms, with the President ineligible to succeed himself. Panamá has no army or navy, but has a national police corps numbering 2,000.

SOCIAL AND ECONOMIC CONDITIONS. Although education is free and compulsory between 7 and 15, 28.3% of the population 10 years of age and over (excluding tribal Indians) could not read and writ

1950. In the year 1953–54 there were 50 public and private primary schools th 125,428 students and 76 public and ivate secondary schools with 24,222 stu-nts; the national university at Panamá ty had 1,735 students.

About five-eighths of the nation is un-cupied. A fourth of the population is in lón and in Panamá City, the oldest nite settlement on the Pacific coast of e Americas. In the cities, the lower asses are Negro and Negroid, descendants British West Indian laborers on the nal.

Bananas are the main agricultural crop; hers are cacao, tobacco, abacá, rubber, ce, coffee and sugar cane, all of which are ported, as are cattle, hides and gold. Im-rts in 1954 were $72,620,601; domestic ports, $17,431,298; re-exports, $1,975,665. nief exports were bananas (57%) and cao (17%). Leading customers were the S. (94%), Venezuela and Colombia; ading suppliers, the U. S. (62%), Canal one, Britain.

The Panama Canal is the country's big-st economic asset. About a third of the ational income is ordinarily derived from ne wages of Panamanians working in the anal Zone, or from cash spent by U. S. ersonnel in the Zone.

The main railway is the U. S. Govern-ent-owned Panamá Railroad, 47.64 miles ng, bridging the isthmus from Panamá ity to Colón. In recent years many for-gn ships have been registered in Panamá escape high labor costs and govern-ental regulations in other nations; in 954, the merchant marine consisted of 598 essels (100 tons and over) of 4,099,186 ross tons, one of the largest in the world.

ATURAL FEATURES; CLIMATE. Panamá, oughly the size of South Carolina, runs ast to west for 420 miles from Costa Rica Colombia, and has a maximum width of 18 miles, with 477 miles of Caribbean oast and 767 on the Pacific. At the nar-owest and lowest point, the canal bisects he country. Outlying islands number bout 630 in the Caribbean and 116 in the acific. Panamá steps up from coastal low-ands, with extremely heavy rainfall (150 nches or more), to upland valleys and lateaus covered by dense forest and a few ountain peaks, some volcanic, near the osta Rican border.

Paraguay (Republic)

(República del Paraguay)

Area: 154,165 square miles.
Population (est. 1954): 1,530,000 (Para-uayan, 97%; Indian, 3%).
Density per square mile: 10.0.
President: Gen. Alfredo Stroessner.
Principal cities (census 1950*): Asun-
906 (rail terminus); Concepción, 29,650 (port, Paraguay River); Villarrica, 26,527 (sugar, tobacco).
Monetary unit: Guaraní.
Languages: Spanish (official), Guaraní.
Religion: Roman Catholic (official).

* Preliminary figures.

HISTORY. Paraguay, a landlocked South American country with a good river outlet to the South Atlantic, is about the size of Montana and, more often than not, is under the rule of a dictator-president.

In 1526 and again in 1529, Sebastian Cabot explored the area when he sailed up the Paraná and Paraguay Rivers. Domingo Martínez de Irala, a Spaniard, founded Asunción in 1537 and became the dominant figure in Paraguay for the next two decades. From 1608 until their expulsion from the Spanish dominions in 1767, the Jesuits maintained an extensive establishment in the south and east of Paraguay. In 1811 Paraguay revolted against Spanish rule and became a nominal republic under two Consuls, one of whom, Dr. José Rodríguez Francia, ruled as absolute dictator until his death in 1840. His dictator successor, Carlos Antonio López, was succeeded in 1862 by his son, Francisco Solano López, under whose leadership Paraguay lost a good part of its population in a disastrous five-year war with Argentina, Brazil and Uruguay.

Paraguay remained neutral in World War I. Economic and financial exhaustion resulted from the war with Bolivia (1932–35), after which Paraguay was awarded three-fourths of the disputed Gran Chaco region (1938).

Juan Natalicio González, elected President in the Feb. 1948 elections, took office Aug. 15, but successive revolts on Jan. 30 and Feb. 26, 1949, ousted him and his successor. The leader of the latter revolt, Felipe Molas López, was elected President on Apr. 17, but gave way to Federico Chaves on Sept. 11, 1949. Chaves was re-elected Feb. 15, 1953, but he was ousted by the army on May 5, 1954, and on July 11 Gen. Alfredo Stroessner was elected to complete his term.

GOVERNMENT AND DEFENSE. Since adoption of the 1940 Constitution, Paraguay has been a semi-authoritarian republic which elects a President every five years by popular vote, and a one-house Congress on a population basis. There is also a Council of State, somewhat equivalent to an upper house, its members named by the government. The presidentially-appointed Cabinet administers the government and is required merely to inform the Congress and Council of its policy.

The army numbers approximately 6,000. Military service is compulsory for two years. For patrolling the Paraguay River, the country's life line, there is a navy of about 1,400 men with four gunboats.

SOCIAL AND ECONOMIC CONDITIONS. The illiteracy rate is unofficially estimated at 60 per cent, one of the highest in South America. Education is free and supposedly compulsory. In 1953 there were 252,393 pupils attending 1,794 elementary schools. The University of Paraguay at Asunción had 2,100 students in 1953, and there are several normal and agricultural schools.

The Paraguayans are a homogeneous blend of Spanish, Portuguese and Italian, with considerable Guaraní Indian blood. There are almost no Negroes; the 35,000 to 50,000 uncivilized Indians live mainly in the Chaco. The country is 90 per cent bilingual, with Guaraní dominating over Spanish (the official language) in rural areas.

A well-favored land, Paraguay is predominantly a cattle country, keeping about 4,000,000 head. The soil is fertile and the climate suitable for subtropical crops. The chief cash crop is cotton (acreage: 150,000; 1953 ginned output: 11,000 metric tons); the staple food crop is manioc. Other crops are rice, maize, yerba maté, tobacco, sugar, peanuts and fruits. Oil of petit-grain, an important perfume ingredient, is extracted from the leaves of the bitter orange.

Exports in 1954 were valued at $33,970,000 and imports at $32,884,000. Chief exports were timber (32%), cotton (19%) and quebracho extract (12%). The U. S., Argentina and Uruguay were the principal customers; the U. S., Argentina and Britain were leading suppliers.

Railway mileage is about 715. In 1954 there were some 800 mi. of modern highways. Domestic air service is furnished by the nationalized Línea Aérea de Transporte Nacional (LATN). Several foreign lines supply international service.

NATURAL FEATURES AND RESOURCES; CLIMATE. Eastern Paraguay, between the Paraná and Paraguay Rivers, is upland country with the thickest population settled on the grassy slope that inclines toward the Paraguay River. The greater part of the Chaco region, to the west, is covered with marshes, lagoons, dense tropical forest and jungle.

Forest resources are considerable, especially in the Chaco. Quebracho—the "Axe-breaker," a wood so heavy that it will not float—is the principal commercial tree. The wood has many uses, from paving blocks to ox-cart wheels. Quebracho tannic extract (exports 1953: 31,621 metric tons) is the chief product. Its export is limited by agreement with Argentina.

In the east, temperature averages about 81° in summer (December–February) and 64° in winter (May–August). From Asunción, with an annual average greater than 60 inches, the rainfall decreases in the west.

Peru (Republic)

(República del Peru)

Area: 482,133 square miles.
Population (est. 1954): 9,295,000 (white and mestizo, 53%; Indian, 46%; Asiatic, Negro and others, 1%).
Density per square mile: 19.3.
President: Manuel A. Odría.
Principal cities (est. Dec. 31, 1952): Lima, 926,400 (capital); Callao, 104,500 (port of Lima); Arequipa, 100,900 (commercial center); Cuzco, 58,200 (ancient Incan capital); Trujillo, 49,600 (mining).
Monetary unit: Sol.
Languages: Spanish, Quéchua, Aymará (Indian).
Religion: Roman Catholic.

HISTORY. Peru, once part of the great Incan empire and later the major viceroyalty of Spanish South America, is more than three times the size of California. It was conquered in 1531–33 by Francisco Pizarro. On July 28, 1821, Peru proclaimed its independence, but the Spanish were not finally defeated until the Battle of Ayacucho on Dec. 9, 1824. For a hundred years thereafter the Peruvian course was rough. Revolutions were frequent, and a new war was fought with Spain in 1864–66. The dispute with Chile over Tacna and Arica was not finally settled until 1929.

Peru emerged from 20 years of dictatorship on July 28, 1945, with the inauguration of President José Luis Bustamante y Rivero after the first free election in many years. However, the change to a regime in which political prisoners were freed and the press was free to criticize was soon tempered by factional troubles within the government. As a result, in a Cabinet reorganization of Jan. 12, 1947, three members of the leftist APRA party, which had contributed largely to Bustamante's election, were eliminated. The rightist-APRA cleavage came to a head on Oct. 28, 1948 when an army-led rightist revolt headed by Gen. Manuel A. Odría ousted Bustamente. Odría became provisional President on Oct. 31. He was unopposed in presidential elections held July 2, 1950.

GOVERNMENT AND DEFENSE. Under the 1933 Constitution, Peru elects by popular vote every six years a President, two Vice-Presidents and a bicameral Congress—a Senate of 47 members and a Chamber of 156 members. The President is ineligible to succeed himself. The Cabinet, headed by the Prime Minister, is presidentially appointed.

Military service is compulsory at the age of eighteen. The army had about 32,000 men in 1950. The 1954 navy had 2 old cruisers, 1 destroyer, 5 submarines, frigates and escort craft and smaller units. There are about 10,000 police and civ guards.

SOCIAL AND ECONOMIC CONDITIONS. Peru, once the cultural center of Spanis

South America, has an illiteracy rate of over 50 per cent. Education between 7 and 14 is free, compulsory and state-controlled. Public and private primary schools numbered 11,769 in 1953 with 1,046,836 pupils; 114 state secondary schools had 47,873 students and 204 private secondary schools, some run by religious orders, had 35,471. Five universities had 13,521 students in 1952, including the University of San Marcos, founded in 1551 (oldest in America) with 8,771.

Most Peruvians are of mixed Spanish and Indian blood. The Indians come from three main stocks—Quéchua, Aymará (Colla) and Chuncho. There is a relatively large Asiatic population.

Land under cultivation is estimated at only slightly more than 10 per cent of the total area, with more than 80 per cent of the population being dependent upon agriculture. About one-eighth of the cultivated area in the irrigated coastal valleys of the central region is devoted to cotton, the most important crop (1954–55 production: 92,000 metric tons). Sugar (1954–55: 608,000 tons), rice, tobacco and coffee are exported, while wheat, corn, potatoes, beans, barley and quinoa (a grain similar to millet) are subsistence crops. Stock-raising, pursued in the Pacific highlands and the elevated parts of the Amazon slope, supplies most of the country's meat needs, as well as wool, hides and skins for export. Llamas, used as beasts of burden, and vicuñas and alpacas, noted for their wool, are native to Peru. Livestock estimates in Dec. 1952 showed 3,189,000 cattle, 1,268,000 hogs, 15,904,000 sheep and (1951) 3,300,000 alpacas and llamas.

Industrialization has been slow. Aside from the copper smelters and oil refineries, the greatest progress has been made in the textile industry, which obtains its raw materials from domestic cotton and wool and from imported silk.

Foreign trade statistics, in millions of soles, are as follows:

	1952	1953	1954
Exports	3,615	3,695	4,744
Imports	4,473	4,944	4,916

Chief exports in 1953 were cotton (29%), sugar (14%), lead (10%) and copper (8%). Chief suppliers were the U. S. (55%), Britain (8%) and Canada (7%); chief customers, the U. S. (38%), Chile (13%) and Britain (9%). Principal Peruvian imports are machinery and motor vehicles, foodstuffs (especially wheat), iron and steel manufactures, electrical goods and chemicals.

Highway mileage in 1951 totaled 19,500, of which more than a third is hard-surfaced; the Pan-American highway had a total Peruvian length of 1,818 miles. Railway mileage (1951) was 2,800.

NATURAL FEATURES AND RESOURCES; CLIMATE. The Andes Mountains divide Peru into three sharply differentiated zones. To the west is the coastland, much of it arid, extending for 50 to 100 miles inland, and 1,400 miles long.

The mountain area, with peaks over 20,000 feet high, lofty plateaus and deep valleys, lies centrally. Beyond the mountains to the east is the heavily forested slope leading to the Amazonian plains.

Peru has vast mineral resources. It ranks fifth in world silver production and mines about 25 per cent of the world's vanadium. But mining is second to agriculture, and nearly all of it is in the hands of foreign capital. Petroleum and copper are the most important, with the latter controlled by the American-owned Cerro de Pasco Corporation, which also accounts for much of the gold and silver output. In 1954 gold production was 147,278 oz.; silver, 19,933,482 oz.; copper (smelter), 29,233 short tons; lead, 63,735 tons; zinc (in ore), 170,882 tons; vanadium (1953), 349 tons. Petroleum production in 1954 was 16,985,000 barrels; discovery of rich new deposits has been reported.

Forest products include rubber (1952: 3,500 metric tons), balata, raw quinine, vegetable ivory, mahogany, cedar, dyewoods and coca, the source of cocaine. An important industry on the outlying islands is the gathering of guano (bird excrement), a valuable fertilizer used almost entirely domestically.

The climate ranges from tropical in the eastern lowlands to arctic among the snow-capped peaks. The coastal area has an average annual rainfall of less than 2 inches and temperatures ranging between 55° and 98°. Temperatures range from 75° to 95° in the humid Montaña, and rainfall between 75 and 125 inches annually.

The Philippines (Republic)

Area: 114,400 square miles.

Population (est. July 1, 1955): 21,848,800 (Filipino, except [1948] 121,702 Chinese, 6,955 Americans, 1,886 Spanish and 3,319 others).

Density per square mile: 191.0.

President: Ramón Magsaysay.

Principal cities (est. 1952): Manila, 1,158,260 (seat of government, chief port); Cebu, 175,950 (seaport); Quezon City, 159,730 (legal, future capital); Basilan, 141,640 (lumber); Bacolod 126,200 (sugar); Zamboanga, 124,710 (seaport).

Monetary unit: Peso.

Languages: English, Tagalog, Bisayan, Spanish, Ilocano, Bicol.

Religions (census 1948): Roman Catholic, 82.9%; Aglipayan (Independent Philippine Catholic), 7.6%; Mohammedan 4.1%; Protestant, 2.3%; others and no religion, 3.1%.

HISTORY. Fernando Magellan, the Portuguese navigator in the service of Spain, dis-

covered the Philippines on March 16, 1521, and 21 years later a Spanish exploration party named the group of islands in honor of Prince Philip, later Philip II of Spain. Spain retained possession of the islands for the next 350 years.

The Philippines were ceded to the United States in 1899 by the Treaty of Paris after the Spanish-American War. Meanwhile the Filipinos, led by Emilio Aguinaldo, had declared their independence. They continued guerrilla warfare against U. S. troops until the capture of Aguinaldo in March 1901. By July 1902, peace was established in all parts of the islands except those inhabited by the Moros.

The first U. S. civilian Governor-General was William Howard Taft (1901–04). The Jones Law (1916) provided for the establishment of a Philippine Legislature composed of an elective Senate and House of Representatives. The Tydings-McDuffie Act (1934) provided for complete Philippine independence in 1946. Under a Constitution approved by the people of the Philippines May 14, 1935, the Commonwealth of the Philippines was inaugurated on Nov. 15 under the presidency of Manuel Quezon y Molina, who was re-elected in 1941.

The Philippines were invaded by Japanese troops on Dec. 8, 1941 (Philippine time), and after the fall of Bataan and Corregidor, President Quezon and his government fled to Washington. The Japanese-sponsored "Philippine Republic" received little support from most Filipinos. U. S. forces led by Gen. Douglas MacArthur reinvaded the islands in Oct. 1944, and after the liberation of Manila (Feb. 1945), Sergio Osmeña, who had succeeded to the presidency on the death of Quezon (Aug. 1, 1944), re-established the Philippine government.

Brig. Gen. Manuel A. Roxas y Acuña, who defeated Osmeña in the elections of April 1946, became first head of the new independent republic, which came into existence on July 4, 1946, as scheduled in the Tydings-McDuffie Act. He died April 15, 1948, and was succeeded by the Vice President, Elpidio Quirino. The latter was re-elected on Nov. 8, 1949, but lost a second bid for re-election to Ramón Magsaysay, who took office on Dec. 30, 1953.

GOVERNMENT AND DEFENSE. Under the Constitution of 1935 (as amended in 1940), the Philippines have a republican form of government based on that of the United States. Executive power is exercised by the President, popularly elected for a 4-year term and assisted by a Cabinet appointed by him. The popularly elected Congress has two houses—the Senate with 24 members and the House of Representatives with 102 members.

Party standing in the House of Representatives (elections of Nov. 10, 1953) was as follows: Nacionalistas 57; Liberals 34; Democratic-Nacionalistas 7; Democrats 3; Independent 1.

The Philippine army has been reorganized and re-equipped with U. S. assistance. An agreement signed March 14, 1947, provided for the establishment, for a 99-year period, of 23 U. S. military, naval and air bases in the islands. Army strength was about 55,000 in 1953. A mutual defense treaty with the U. S. was signed Aug. 30, 1951.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Education is free. The illiteracy rate (10 years and over) was 30% in 1952. In 1951–52 there were 4,018,476 pupils in the 23,000 public schools; 2,717 private schools had 774,048 pupils. There were 90 institutions of higher learning, including the state-supported University of the Philippines. Tagalog is the national language but English and Spanish are used throughout the country.

Agriculture and Industry. Agriculture is the chief industry. Average size of the farms is 10 acres, but there are many large plantations. Rice (palay) is the staple native food cereal, but production (3,182,400 metric tons in 1953–54) is insufficient to meet home consumption. The Philippines normally produce about half the world copra supply and a large proportion of the abacá (Manila hemp) supply; they are also a leading source of sugar (1954-55: 1,250,000 metric tons) and sugar products, normally the chief export. Other crops include sisal, kapok, cotton, corn, tobacco, coffee, rubber, cacao, citrus fruits and bananas. In the crop year 1953–54, 942,000 metric tons of copra, 27,500 tons of tobacco and 106,200 tons of abacá were produced. Livestock on Jan. 1, 1954, included 2,836,424 carabaos, the farmers' all-purpose animal, 846,142 cattle, 230,296 horses and 6,423,450 hogs.

There are no large industrial establishments and activity is limited primarily to the processing of agricultural and forest products, such as sugar cane, coconuts, tobacco, abacá and timber. Preparation of fine embroideries is an important industry.

Foreign Trade. Statistics of trade, in millions of pesos, are as follows:

	1952	1953	1954
Exports	704.8	801.2	810.0
Imports	852.2	894.7	965.0

In 1953 the chief exports were copra (29%), sugar (24%), abacá (10%) and base metals and concentrates (9%). Leading customers were the U. S. (67%) and Japan (12%); leading suppliers, the U. S. (78%) and Japan (5%). Leading imports were machinery and vehicles (14%), cotton and manufactures (13%), iron and steel and manufactures, and petroleum and products.

inance. Recent data are as follows (in illions of pesos):

	1953–54	1954–55*	1955–56†
evenue	570.7	650.5	652.1
xpenditure	610.7	650.2	652.0

* Revised budget estimate. † Initial budget estimate.

The total public debt on Dec. 31, 1954, ıcluding provincial and municipal obli- ıtions guaranteed or assumed by the ıtional government, was 983,166,563 pesos.

ommunication. The inter-island trade -extremely important because of the ıkeup of the archipelago—is served by essels licensed for domestic, coastwise and ay and river traffic. The port of Manila as ample facilities for ocean-going vessels. ccording to *Lloyd's Register,* the mer- ıant marine had 103 vessels (100 tons and ver) of 155,656 gross tons on June 30, 954.

Railway mileage (1954) totaled 740, most which (584 mi.) was on Luzon. High- ays totaled 18,500 mi. that year. Air trans- ortation has assumed an important place inter-island communications; domestic ıes flew 4,428,540 mi. and carried 252,- 30 passengers in 1954.

ATURAL FEATURES AND RESOURCES; LIMATE. The Philippines are an archi- elago of approximately 7,083 islands lying out 500 miles off the southeast coast of sia. The northernmost island, Y'Ami, 65 miles from Formosa, while the south- rnmost, Saluag, is 30 miles east of Borneo. nly 466 of the islands have an area of ore than one square mile, and only 441 have names. The largest islands are uzon in the north (40,814 sq. mi.), lindanao in the south (36,906 sq. mi.), amar (5,124 sq. mi.), Negros (4,903 sq. i.), and Palawan (4,500 sq. mi.).

Minerals, Forests and Fisheries. The Phil- ppines possess large but relatively unde- eloped mineral resources. Most important re gold, silver, iron ore, copper ore, chro- ite, manganese ore, lead and zinc. Petro- eum formations are also known to exist. ı 1954, 416,052 ounces of gold, 527,160 unces of silver, 14,349 metric tons of pper concentrates, 451,185 tons of chro- ite, 1,424,898 tons of iron ore, 119,627 ns of coal, 9,393 tons of manganese and 827 tons of lead were mined.

The forest area is estimated at more an 43,700,000 acres (about 58 per cent of ıe total area), not including 3,200,000 cres covered with cogón grass, fit for razing. About 97.5 per cent of the total rest area is government-owned. Lumber roduction totaled 401,857,942 bd. ft. in 953–54; timber, 3,380,891 cu.m.

limate. The temperature is warm ıroughout the year, averaging 80°, with nly slight variations. Rainfall averages bout 90–100 inches annually, with the ettest season occurring from June or July through October. Typhoons, often causing severe damage, originate in the Pacific and strike the islands from the east and southeast before curving north.

Poland (People's Republic)

(Rzeczpospolita Polska)

Area: 119,703 square miles.
Population (est. 1954): 26,780,000.
Density per square mile: 223.7.
Chairman of State Council: Aleksander Zawadski.
Premier: Josef Cyrankiewicz.
Principal cities (est. 1954): Warsaw, 950,000 (capital); Lódz, 655,000 (industrial center); Kraków, 435,000 (commercial center); Wroclaw (Breslau), 430,000 (former German industrial center); Poznan, 335,000 (farm products).
Monetary unit: Zloty.
Language: Polish (more than 90%).
Religions: Roman Catholic, Jewish, Protestant.

HISTORY. Little of certainty is known about Polish history before the 11th century. Early in that century the Polish King, Boleslaus I (the Brave), ruled over Bohemia, Saxony and Moravia. Mongol invasions in 1241 and 1259 were repelled with accompanying devastation. Meanwhile, the Teutonic Knights were erecting in Prussia a state which included part of Poland and barred the latter's access to the Baltic. The Knights were defeated by Wladislaus II (1386–1434) at Tannenberg in 1410 and became Polish vassals under the Peace of Thorn (1466), by which Poland regained a Baltic shoreline.

Poland reached the peak of its power between the 14th and 16th centuries. The 16th century was marked by a constant growth of power on the part of the lesser nobility with a corresponding weakening of the Crown, which became elective in 1572. In succeeding years, Poles scored many military successes against the Russians and Turks. In 1683, King John Sobieski, a famous military leader, turned back the Turkish tide near Vienna.

These successes did not halt the process of decline which resulted from the lack of strong central authority, and Prussia, Russia and Austria were able to carry out a first partition of the country in 1772, a second in 1792 and a third in 1795–96. For more than a century thereafter, there was no Polish state, but the Poles never ceased their efforts to regain their independence. World War I found them fighting unhappily on both sides.

The independence of Poland was formally proclaimed in Nov. 1918, and Marshal Josef Pilsudski was confirmed in office as President. In 1919, Ignace Paderewski, famous pianist and patriot, became the first Premier. Russia attacked Poland in 1920 but the Poles, under Marshal Pilsudski and

aided by the French, defeated the invaders. On May 12, 1926, Marshal Pilsudski seized complete power in a *coup d'état* and ruled the country dictatorially until his death on May 12, 1935, when he was succeeded by Marshal Edward Smigly-Rydz.

Despite a 10-year nonaggression pact signed with Germany in 1934, Hitler attacked Poland on Sept. 1, 1939. Russian troops invaded from the east Sept. 17, 1939, and on Sept. 28 a German-Russian agreement was signed dividing Poland between Russia and Germany. Before leaving Poland, President Ignacy Moscicki resigned, designating as his successor W. Raczkiewicz; the latter formed a government-in-exile in France with Gen. Wladyslaw Sikorski as Premier; this government moved to London after France's defeat in 1940. All of Poland was occupied by Germany after the Nazi attack on the Soviet Union in June 1941. On July 30, 1941, Poland concluded an agreement with the U.S.S.R. voiding all German-Soviet agreements effected after Sept. 1, 1939.

The legal Polish government soon fell out with the Russians, however, and in July 1944, a Communist-dominated Polish Committee of National Liberation received Soviet recognition. Moving to Lublin after that city's liberation, it proclaimed itself the Provisional Government of Poland on Dec. 31, 1944. After almost six months' negotiations, some of the former members of the Polish Government in London joined with the Lublin government to form the Polish Government of National Unity on June 28, 1945. Great Britain and the U. S. recognized this government on July 5, 1945, and withdrew recognition from the London government.

On Aug. 2, 1945, in Berlin, Prime Minister Attlee, President Truman and Generalissimo Stalin established a new *de facto* western frontier for Poland, along the rivers Oder and Lausitzer Neisse, pending a final peace treaty. On Aug. 16 the Soviet Union and Poland signed a treaty delimiting the Soviet-Polish frontier. Under these agreements Poland was shifted westward. In the east it lost 69,860 square miles with 10,772,000 inhabitants; in the west it gained (subject to final peace conference approval) 38,986 square miles with a prewar population of 8,621,000.

Democratic participation was negligible in the new government, which had adhered strictly to Soviet foreign policy and pursued a program of internal socialization. The government bloc controlled by the small Communist minority won a sweeping victory in the Jan. 1947 elections, which gave little opportunity to the opposition for campaigning or voting. The Communist and Socialist parties were merged in Dec. 1948. All candidates in elections held Oct. 26, 1952, belonged to the Communist-controlled National Front. In Nov. 1952, Aleksander Zawadski was elected Chairman of the State Council under the new Constitution, and former President Boleslaw Bierut was elected Premier. On March 19, 1954, he yielded to Josef Cyrankiewicz, who was Premier from 1947 to 1952, and became First Secretary of the Polish Communist party.

GOVERNMENT AND DEFENSE. The 1952 Constitution is based on that of the U.S.S.R. The supreme organ of state authority is the Sejm, composed of 425 members elected for 4 years by all citizens over 18. It elects a State Council to act when it is not in session and also elects the Council of Ministers, headed by the Premier, which is the supreme executive and administrative organ.

Poland's army in 1953 numbered about 600,000, including security and frontier defense forces. The navy in 1954 had 2 destroyers, 4 submarines and some minesweepers and coastal craft.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* In 1952–53 there were 22,977 primary schools with about 3,300,000 pupils. Secondary schools numbered 768 with 340,000 pupils. The 83 institutions of higher learning, including 8 universities, had 123,500 students in 1951–52. Education is free and compulsory up to 14.

Agriculture. Poland remains essentially an agricultural country: the areas now under *de facto* Polish administration in the west accounted for 25 per cent of Germany's pre-war food production. Farm lands lost to the Soviet Union were considerably larger in area than those gained from Germany however.

Agricultural production figures in 1951 in metric tons, included wheat, 2,280,000; sugar beets, 6,900,000; (1950) rye, 6,502,000; oats, 2,126,000; potatoes, 36,835,000. In 1952–53, there were 2,720,000 horses, 9,900,000 hogs, 3,300,000 sheep and (1953–54) 7,000,000 cattle.

Industry. Industrial facilities, although severely damaged during World War II, were not greatly affected by territorial concessions to the U.S.S.R., with the exception of the Lwów area. On the other hand, important German industrial areas, especially Silesia and the city of Stettin, are located in the territories under *de facto* Polish administration. As a result, postwar Poland has a much larger industrial potential. Almost all industries have been nationalized or placed under state control and a planned economy has been introduced as part of the government's drive to make Poland an industrial nation. Production of crude steel was about 3,964,000 metric tons in 1954.

Trade. Foreign trade is largely conducted by government bodies under the term

numerous trade agreements with other ions. In 1950 exports totaled $631,000,- ; imports, $844,000,000. In 1952 the iet share in Polish foreign trade was %; that of Soviet satellites or allies, in- ding eastern Germany and China, 35%; t of the free world, 33%.

Poland stopped publishing detailed data foreign trade in 1949. Exports in 1949 e unofficially reported to be divided as ows: coal and coke (46%), other raw terials and semimanufactures (18%), l agricultural products (mainly bacon l ham) and consumer's goods (20%). jor imports were machinery, textiles, micals and mineral products.

ance. The 1954 budget estimated reve- e at 115,350,000,000 zlotys and expendi- e at 103,480,000,000 zlotys.

mmunications. The merchant marine l 142 vessels (100 tons and over) of ,036 gross tons on June 30, 1954. The ncipal ports are Gdynia, with one of largest harbors in Europe, Gdansk anzig) and the former German port of ttin. There are about 61,000 miles of blic highway, 4,800 miles of inland terways and 15,500 miles of railway.

TURAL FEATURES AND RESOURCES; IMATE. Most of Poland is a plain with natural boundaries except the Car- thian Mountains on the south and the er and Neisse Rivers on the west. The ntral Polish plain, 300 to 450 feet above level and intersected by great rivers, south of the flat country along the ltic shore.

The acquisition of large coal deposits in rman Silesia (estimated at more than 00,000,000 tons), combined with much ger reserves in the southwestern region, kes Poland one of the world's leading l producers. The 1954 output was 91,- ,000 metric tons, a third of which was oduced in former German territory. Iron deposits are located in the Kielce and dom districts and in German Silesia. oduction in 1952 was 1,000,000 tons. Zinc l lead ores are located chiefly in Upper esia and the voivodships of Kielce and aków. Prewar Poland's principal oil- oducing areas, Boryslaw-Drohobycz, are the territory ceded to the Soviet Union; 53 production was about 1,850,000 barrels ne-third of prewar). Among other de- sits, Poland possesses copper, sulfur, alk, clay, kaolin, marble and granite.

Forests cover 22 per cent of the land, but portant wood resources are located in territory ceded to the Soviet Union, d current production supplies less than lf the annual need.

Poland's climate is dependent upon her oximity to the Baltic and to the Car- thian Mountains. Abundant rainfall nnual average: 22.8 in.) is caused by the predominating western oceanic winds. Snowfall is not heavy, but temperatures below zero are not uncommon, and the rivers are generally icebound for two and a half to three months each year.

Portugal (Republic)

(República Portuguesa)

Area: 35,413 square miles.
Population (est. 1954): 8,693,000 (practically all Portuguese).
Density per square mile: 245.5.
President: Gen. Francisco Higino Craveiro Lopes.
Premier: António de Oliveira Salazar.
Principal cities (census 1950): Lisbon, 790,434 (capital, seaport); Oporto, 284,842 (seaport, port wine); Setúbal, 44,030 (seaport, sardines); Coimbra, 42,640 (university); Funchal (in Madeira Islands), 37,215 (Madeira wine).
Monetary unit: Escudo.
Language: Portuguese.
Religion: Roman Catholic.

HISTORY. Rolling and rugged Portugal is about the size of Indiana and, thanks to the days when its sailors and explorers were among the world's most venturesome, has a colonial empire 23 times the area of the homeland. A traditional ally of Britain, Portugal remained neutral in World War II but gave the Allies the right to use vital island bases in the Atlantic.

Portugal was part of Spain until it won independence in 1143 with Alfonso I as the first King. During the long reign of King John I (1385–1433), a great commercial empire was built, largely through the exploratory hobby of the King's son, Prince Henry the Navigator. Bartholomeu Diaz explored Africa's west coast and reached the Cape of Good Hope in 1488. Vasco da Gama rounded the Cape and discovered the water route to India in 1497–99. Portugal's empire reached its crest about 1540, when it embraced the coast of Brazil, east and west Africa, Malabar, Ceylon, Persia, Indo-China and Malaya.

In 1580–81 Spain and Portugal were joined in a personal union under Philip II of Spain. Portugal revolted in 1640 and set up a new dynasty under John IV, Duke of Braganza, but the country never recovered its position as one of Europe's major powers. In 1806, when Portugal refused to obey Napoleon's orders that all continental ports be closed to British ships, French forces invaded the country but were ousted in 1811 by British and Portuguese forces under the Duke of Wellington. The royal family had fled to Brazil in 1807 but following an uprising at home, the King, John VI, returned in 1821.

Brazil declared its independence in 1822 and John's son, Pedro became Emperor of the new state as Pedro I. In 1832, Pedro I, who had abdicated as Emperor of Brazil

in 1831, returned to Europe and led an uprising with British assistance in favor of his daughter, Maria II, displacing his younger brother, Miguel I, who had been proclaimed King in 1828. The descendants of Maria's marriage with Ferdinand of Saxe-Coburg ruled Portugal until 1910, when King Manoel II was forced into exile by a republican revolt.

On June 19, 1911, the monarchy was abolished, and a republican Constitution was introduced. Portugal proclaimed its loyalty to the British alliance upon the outbreak of World War I, and Portuguese troops fought both in Africa and on the Western Front.

On May 30, 1926, a revolution led by the army deposed the President and set up a military dictatorship. General António Oscar de Fragoso Carmona became Premier and acting President Nov. 29, 1926, and was elected President on March 25, 1928. Dr. António de Oliveira Salazar, who was appointed Finance Minister in 1928, founded the organization known as the National Union in 1930 and has been Premier and dictator since 1932. His regime, while admittedly opposed to liberal or democratic principles, brought political and economic stability to Portugal.

General elections for members of the National Assembly held on Nov. 18, 1945, Nov. 13, 1949 and Nov. 8, 1953 were, except in isolated districts in 1953, boycotted by the opposition, and the National Union was continued in office. Portugal adhered to the North Atlantic Pact in April 1949.

President Carmona died April 18, 1951; Gen. Francisco Lopes was elected without opposition to succeed him July 22, 1951.

GOVERNMENT AND DEFENSE. Under the Constitution of 1933 Portugal is a corporative republic. The President is popularly elected for a term of 7 years; the National Assembly of 120 members for a term of 4 years. There is also a Corporative Chamber which handles economic, social and some legislative matters; its members are representatives of local autarchies and of the several branches of social activities —administrative, moral, cultural and economic. The Assembly theoretically may overrule the President's veto by two-thirds vote. The President appoints the Premier, who in turn selects the Cabinet; the latter is not responsible to the National Assembly.

Military service is compulsory; the initial training period is 6 years, but not all those liable for duty are called up. The army numbered about 64,000 in 1951 (including the Portuguese Legion, a volunteer force); the air force had 575 planes in 1949. The navy in 1954 had 5 destroyers, 3 submarines, 8 sloops and several smaller craft. Naval personnel numbers about 7,000.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory, but in 195[illegible] 40.4% of the population (7 years and over) could not read and write. Public primary schools numbered 12,001 in 1951–52, with 639,344 pupils. Secondary schools numbered 43 with 28,677 pupils. Private primary schools were attended by 33,9[illegible] pupils; private secondary schools by 27[illegible] 900. There were 3 universities (Coimbra, Lisbon and Oporto) with 10,515 students.

Portugal's corporate state has a planned economy in which each producing unit regulates itself in the interest of the nation. Corporate units have been established in agriculture, industry and finance. As an example, the government controls the wine trade by means of a federation of growers and a guild of exporters.

Sixty per cent of Portugal's people are engaged in agriculture. Although wheat is the leading crop, it is insufficient to meet domestic needs, and grain must be imported. One of the world's leading wine makers, Portugal produces two famous kinds—Port in the vicinity of Oporto, and Madeira in the islands of the same name. In olive oil production, Portugal usually ranks third in the world (estimated production 1954: 40,000 metric tons).

Leading crops in 1954, in metric tons were wheat, 705,000; barley, 100,000; oats 126,000. Wine production in 1954 was about 293,100,000 U. S. gallons (1949–53 average 233,000,000 gallons).

Wool production in 1953 was approximately 6,000 metric tons, clean basis.

Trade statistics, in millions of escudos:

	1952	1953	195[illegible]
Exports	6,854	6,284	7,2
Imports	9,991	9,547	10,0

* Preliminary.

In 1954 the principal customers were the Portuguese overseas territories (25%), Britain (15%) and the U. S. (10%); chief suppliers, the Portuguese territories (17%), Britain (15%) and Germany (14%). The chief exports were cork (20%), fish, mainly sardines (11%) and wine (9%). Leading imports included wheat and flour, ships, industrial machinery, raw cotton and iron and steel.

On June 30, 1954, the merchant marine had 335 vessels (100 tons and over), 571,023 gross tons. Railway mileage in 1[illegible] was 2,236, and highway mileage was 17,8[illegible]

NATURAL FEATURES AND RESOURCES. CLIMATE. Portugal is crossed by many small rivers, and also by three large ones which rise in Spain, flow into the Atlantic and divide the country into three geographic areas. The Minho (Miño in Spain), River, part of the northern boundary, cuts through a mountainous area that extends south to the vicinity of the Douro (Due

er. South of the Douro the mountains
e to the plains about the Tagus (Tejo)
er. The remaining division is the south-
one of Alentejo.

he Azores, stretching over a distance of
miles in the Atlantic, consist of 9
nds divided into three groups, with
l area of 888 square miles. The nearest
inental land is Cape da Roca, Portugal,
ch lies 800 miles to the east. The Azores
an important station on Atlantic air
es, and both Britain and the United
es established air bases there during
ld War II. Madeira, consisting of two
abited islands, Madeira and Porto
to, and two groups of uninhabited is-
ls, lies in the Atlantic about 535 miles
hwest of Lisbon. Total area of the
leiras is 314 square miles.

ineral resources have not been fully
eloped, but wolfram, coal, iron ore,
per, manganese, iron pyrites, lead, tin,
other ores are found. The coal output
1954 was 432,000 metric tons; (1953)
tes, 651,000 tons; tin concentrates,
4 tons; lead, 1,640 tons; tungsten,
9 tons.

ortugal is one of the world's leading
ducers of cork; production in 1952 was
601 metric tons. In 1952, 21,476 metric
s of resin and 5,188 tons of turpen-
were exported.

he fishing industry is a basic part of
national economy, employing 40,413
and 16,657 boats in 1952. Of special
ortance is the sardine industry cen-
d at Setúbal. The total fishing catch in
was 392,400 metric tons.

ortugal's climate is equable and tem-
ate, but in the deep valleys where the
ntains keep out the cool winds from
Atlantic, it is excessively hot in sum-
. Lisbon, Coimbra and Oporto all have
n temperatures of 60° to 61.5°. Heavy
s are common along the coast. Rainfall
s high as 110 inches annually in the
th and on the Serra da Estrella.

ORTUGUESE OVERSEAS TERRITORIES

	Area, sq. mi.	Population, census 1950
FRICA		
ola (Portuguese Vest Africa)	487,788	4,145,184
e Verde Islands	1,539	147,097
ambique (Portuguese ast Africa)	297,654	5,738,819
tuguese Guinea	13,944	508,970
Tomé and Principe	372	62,159
SIA		
ao	5	187,772
tuguese India	1,538	637,846
or	7,330	442,378

he status of the Portuguese overseas
itories is fixed by the Colonial Act of
1930 included in the Constitution approved March 19, 1933, and revised in 1951. Each territory has a Governor or Governor General, appointed by the Council of Ministers for an initial 4-year term and responsible to the Minister of Overseas Territories at Lisbon. Each territory has financial and administrative autonomy.

ANGOLA (Portuguese West Africa)—Status: Overseas territory.
Capital: Loanda (population 164,340).
Governor General: José Agapito da Silva Carvalho.
Foreign trade (1954): exports, 2,957,436,000 escudos (28% to the U. S.); imports, 2,753,884,000 escudos (48% from Portugal). Chief exports: coffee (45%), diamonds (12%).
Agricultural products (1954): sugar, 43,893 metric tons; cotton, 17,292 tons; sisal; coffee; maize; palm kernels and oil; peanuts; rice.
Minerals: diamonds (1954: 721,607 carats), lignite, copper.
Forest products: beeswax, timber.
Industries: sugar, palm oil, whale oil, fish oil.

Angola stretches along the west African coast for about 1,000 miles from Belgian Congo to the Cunene River. Outside of a coastal plain varying in width from 30 to 100 miles, the area is part of the great African plateau. The Angola coast and the Congo River were explored by the Portuguese in 1482–85, and Loanda was founded in 1576. The Governor General is assisted by a Council of 10 (5 officials and 5 Portuguese nationals).

Angola is primarily an agricultural country. Its varied altitude enables it to produce both tropical and temperate crops. Excellent grazing land exists in many parts of the colony. The chief ports are Loanda and Lobito. The great majority of the population are of Bantu-Negro stock, mixed in the Congo district with the pure Negro. Europeans in 1950 numbered 78,903; half-castes, 29,550.

Mean annual temperature at Loanda is 74.3°; the cool season lasts from June to September, the wet from October to May. Rainfall in the lower altitudes exceeds 40 inches annually.

CAPE VERDE ISLANDS—Status: Overseas territory.
Capital: Praia (population 9,980).
Governor: Manuel Marques Abrantes Amaral.
Foreign trade (1952): exports, 239,100,000 escudos; imports, 259,800,000 escudos. Chief exports: salt, preserved fish.
Agricultural products: coffee, millet, castor oil, oranges, hides.

This group of 14 volcanic islands lying off the west African coast was discovered in 1456 by the Venetian captain Alvise Cadamosto, in the service of Prince Henry the Navigator. The island of São Vicente is an important coaling station on the South American route. The vast majority of the

inhabitants are mulattoes (101,498 in 1950) and Negroes (42,487)—descendants of slaves brought to the islands from Africa by early settlers. Public slavery was abolished in 1854, and private slavery in 1876. Europeans in 1950 numbered 3,109.

Summer temperatures are high in the archipelago, ranging up to 90° near the sea. The rainy season lasts from August to October.

MOZAMBIQUE (Portuguese East Africa)—Status: Overseas territory.
Capital: Lourenço Marques (population 93,265).
Governor General: Gabriel Maurício Teixeira.
Foreign trade (1954): exports, 1,581,241,000 escudos; imports, 2,449,844,000 escudos. Chief exports: cotton (34%), copra (10%), cashew nuts, sisal, tea, sugar.
Agricultural exports (1954): cotton, 38,602 metric tons; copra, 36,554 tons; sugar, 52,759 tons; cashew nuts, 58,992 tons; sisal, 24,852 tons; tea, 5,229 tons; vegetable oils.
Minerals: gold, coal, graphite, mica.
Forest products: mangrove bark, timber.

Mozambique, stretching for about 1,430 miles along Africa's southeast coast, was discovered by Vasco da Gama in 1498, although the Arabs had penetrated into the area as early as the 10th century A.D. It was first colonized in 1505, and by 1510 the Portuguese were masters of all the former Arab sultanates on the east African coast. The boundaries with British Central and South Africa were delimited in 1891, and with Tanganyika Territory in 1886 and 1890. By the Treaty of Versailles, following World War I, Portugal was allotted the Kionga triangle, formerly part of German East Africa. One of the four provinces—Manica and Sofala (87,454 sq. mi.)—was held by the Mozambique Company until 1942, at which time the Portuguese government refused to renew its charter.

Agriculture is the chief industry. There are many large plantations, some of which are partially mechanized. Stockraising is hampered by prevalence of the tsetse fly.

Ninety-nine per cent of the inhabitants are native Africans of the Bantu Tribes. In 1950 there were 48,213 Europeans, 12,630 Asiatics and 25,149 mulattoes. There were 1,652 miles of railway and 18,078 miles of road, mostly unimproved. The chief ports are Lourenço Marques and Beira, which is also the port for Rhodesia. The principal river is the Zambezi.

The cool season lasts from April to August, and the rainy season from December to March. On the central coast the mean annual temperature is about 85°.

PORTUGUESE GUINEA—Status: Overseas territory.
Capital: Bissau (population 18,309).
Governor: Diogo de Melo e Alvim.
Foreign trade (1950): exports, 118,000,000 escudos; imports, 128,000,000 escudos. Chief export: peanuts (32,000 metric tons).
Agricultural products: peanuts, palm kernels, hides, rice.
Forest products: wax, timber.

This area, lying on the west Africa coast and almost surrounded by Frenc West Africa, was discovered in 1446 by th Portuguese Nuno Tristão and was sepa rated from the colony of the Cape Verd Islands in 1879. It consists of a low-lyin coastal region and 60 islands off the coas The country is undeveloped economically and most of the natives are farmers. There are no railways, but navigable rivers total ing over 1,000 miles are important trad arteries; there are also about 1,820 mile of roads. About two-fifths of the native are Moslem; there were 2,254 Europeans i 1950. On the coast, the temperature varie between 77° in January and 85° in May The dry season extends from December t May.

SÃO TOMÉ AND PRINCIPE—Status: Overseas territory.
Capital: São Tomé (population 7,813
Governor: António Pires Barata.
Foreign trade (1954): exports, 248,291,231 escudos; imports, 125,255,407 escudos Chief exports: cacao (80%), copra, coco nuts.
Agricultural products: cacao, coffee coconuts, copra, palm oil.

These volcanic islands, lying in the Gu of Guinea about 150–175 miles off th west African coast, were discovered by th Portuguese in 1471. Most of the early in habitants were convicts and Jews fro Portugal and slaves from Brazil and th mainland, but the bulk of the present in habitants are Negro contract laborers fro the mainland and Cape Verde engaged work cacao plantations. There were 1,1 Europeans and 4,300 mulattoes in 1950.

MACAO—Status: Overseas territory.
Capital: Macao (population 166,544).
Governor: Joaquim Marques Espartei
Chief exports: fish, cement, preserves.
Manufactures: cement, preserves, fi crackers, vegetable oils, metal products.

Macao comprises the peninsula of Mac and the two small islands of Taipa a Colôane on the south China coast, abo 35 miles from Hong Kong. Established the Portuguese in 1557, it is the old European outpost in the China trade, h Portugal's sovereign rights to the p were not recognized by China until 18 and its boundaries are still not delimit The port has been eclipsed in importa by Hong Kong, but it is still a busy c tribution center, and also has an imp tant fishing industry employing over 000 people. It is notorious for its opi trade and gambling houses. Most of population is Chinese; Europeans nu bered 2,719 in 1950.

ORTUGUESE INDIA—Status: Metro-tan province.
apital: Panjim (Nova Gôa) (population 50).
overnor General: Paulo Bénard Guedes.
oreign trade (1953): exports, 67,412,- rupias*; imports, 96,602,706 rupias.
f exports: manganese ore (30%), iron (22%), cashew nuts.
gricultural products: cashew nuts, nuts, spices.
inerals (exports 1953): manganese ore, 464 metric tons; iron ore, 464,596 tons.
rupia = 5.97 escudos.

he area consists of Gôa and 3 islands he Malabar coast of India; Damão and territories of Dadará and Nagar-Aveli, the Gulf of Cambay; and Diu, with continental territories of Gocola and bor, on the coast of Gujarat. Gôa, cap-d in 1510 by the Portuguese, later be-e capital of the whole Portuguese ire in the east. The native population rgely Hindu.

IMOR—Status: Overseas territory.
apital: Dili (population 7,000).
overnor: Cesar Maria de Serpa Rosa.
oreign trade (1954): exports, 39,008,000 ndos; imports, 63,187,000 escudos. Chief orts: coffee (79%), copra.
gricultural products: coffee, copra.
orest products: sandalwood, wax.

ortuguese Timor consists of the eastern of the island of Timor in the Malay nipelago, with the territory of Ambeno two neighboring islands. It was first ded by the Portuguese early in the 16th cury. In 1859 the island was divided veen Portugal and the Netherlands; r boundary adjustments were made in 4. Fishing and copra manufacture are ortant; trade is mostly in the hands Chinese, Malayans and Arabs. Europeans mbered 568 in 1950. Timor was occupied Dutch and Australian troops in Dec. ., and by the Japanese in Feb. 1942.

umania (People's Republic)

(Republica Populara Româna)

rea: 91,654 square miles.
opulation (est. 1953): 16,500,000 (1948: nanian, 85.7%; Magyar, 9.4%; German, %; Jews, 0.9%; others [Turkish, Ru-nian, Bulgarian, Gypsy, Ukrainian] %).
ensity per square mile: 180.0.
hairman of Presidium: Petru Groza.
remier: Gheorghe Gheorghiu-Dej.
rincipal cities (census 1948): Bucharest, 1,807 (capital); Cluj, 110,956 (Transyl-ian industrial center); Jassy, 108,987 ding center, Moldavia); Timisoara, 296 (western commercial center); esti, 105,114 (oil).
lonetary unit: Leu.
anguages: Rumanian, Hungarian, Ger-n, Turkish.
eligions (est. 1947): Eastern Orthodox, ; Greek Catholic, 9%; Roman Catholic, ; others, 3%.

HISTORY. In World War I, Rumania joined the Allies and won enough land at the peace conference to double its size. In World War II, Rumania joined the Axis and lost about half its earlier gains. Its present size is about that of Oregon. Politically, it is dominated by the Soviets.

Most of Rumania was the Roman province of Dacia from about A.D. 100 to 275. From the 6th to the 12th centuries, wave after wave of barbarian conquerors—Vlachs, Bulgars and others—passed over the area. Of the two regions which eventually became Rumania, Walachia was taken by the Turks in 1411, and Moldavia in the 16th century, but both retained semi-autonomy. After the Russo-Turkish War, they went under *de facto* Russian protection in 1774.

The Treaty of Paris following the Crimean War nominally united the two provinces in 1858, and Alexander Cuza was elected Prince of Moldavia and Walachia. In 1866 he was forced to abdicate and was succeeded by Prince Carol of Hohenzollern-Sigmaringen. The Treaty of Berlin recognized Rumania's complete independence in 1878, and in 1881 the principality was elevated to a kingdom. Rumania's spoils from the Second Balkan War in 1913 included the Black Sea province of Dobruja. The following year King Carol I was succeeded by his nephew, Ferdinand. The gains of World War I, making Rumania the largest Balkan state, included Bessarabia, northern Transylvania and Bukovina. The Banat, a Hungarian area, was divided with Yugoslavia.

In 1926 Crown Prince Carol renounced his rights to the throne, and when King Ferdinand died on July 20, 1927, Carol's son, Michael (Mihai) became King under a regency. However, Carol returned from exile in 1930, was crowned King Carol II, and gradually became a powerful political force in the country. On Feb. 10, 1938, he abolished the democratic Constitution of 1923. On June 21, 1940, the country was reorganized along Fascist lines, and the Fascist Iron Guard became the nucleus of the new totalitarian party. On June 27, the Soviet Union occupied Bessarabia and northern Bukovina. By the Axis-dictated Vienna Award of Aug. 30, 1940, two-fifths of Transylvania went to Hungary. On Sept. 4, the King dissolved Parliament and granted the new Premier, Ion Antonescu, full power, after which he abdicated and went into exile with his mistress, Magda Lupescu, whom he married in 1947 when she became gravely ill. The first official act of his son, Michael I, was to confirm Antonescu in his status as head of the state and Premier. Rumania subsequently signed the Axis Pact on Nov. 23, 1940, and the following June joined in Germany's attack on the U.S.S.R., reoccupying Bessarabia. Following the invasion of Ru-

mania by the Red Army in Aug. 1944, King Michael led a *coup d'état* which ousted the Antonescu government. An armistice with the U.S.S.R. was signed Sept. 12 in Moscow.

Elections held Nov. 19, 1946, resulted in a victory for the Communist-dominated government bloc. Michael abdicated on Dec. 30, 1947, and thereafter the nation was declared a "people's republic." The Communist-controlled People's Democratic Front was unopposed in elections held Nov. 30, 1952.

GOVERNMENT. The 1952 Constitution is based on that of the U.S.S.R. The supreme organ of state authority is the Grand National Assembly of 423 members elected for 4 years by all citizens over 18. It elects a Presidium to act when it is not in session and also elects the Council of Ministers, headed by the Premier, which is the supreme executive and administrative organ.

PEACE TREATY OF 1947. The Paris peace treaty ratified on Sept. 15, 1947, confirmed the *de facto* cession to the Soviet Union of Bessarabia and northern Bukovina, the return to Rumania from Hungary of northern Transylvania (thus annulling the Vienna Award of 1940) and the cession of southern Dobruja to Bulgaria. In addition, Rumania was required to pay reparations in kind in the amount of $300,000,000 (reduced to $225,000,000 by the U.S.S.R. in 1948) to the Soviet Union over a period of eight years. She also was to make compensation in lei to the amount of two-thirds of the original value of Allied property damaged or destroyed in Rumania.

The treaty limited the strength of the Rumanian armed forces as follows: army 125,000 men, navy 5,000 men and tonnage of 15,000, air force 8,000 men and 150 planes. The armed forces were soon reorganized and re-equipped with Soviet assistance.

Despite treaty limitations, the total of Rumanian armed-forces personnel was estimated at more than 350,000, including security troops, by 1953.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory. Illiteracy was 23.1% in 1948. In 1952 there were 15,546 elementary schools with 2,100,000 pupils. Secondary students numbered 365,310 in 1951. There are five universities —at Bucharest, Jassy, Cluj (2) and Timisoara.

Rumania is predominantly agricultural, with about 80 per cent of the population engaged on the soil. In wheat, rye and other grains, it is one of the richest countries of southeastern Europe. The largest acreage is usually devoted to corn and wheat. Other crops are flax, hemp, fruit, vegetables, potatoes, sugar beets, sunflower seeds, tobacco and grapes. Stockraising is also important. In Dec. 1953, there were 1,080,000 horses, 4,930,000 cattle and 3,523,000 pigs.

Agrarian reform measures effected in 1945 provided for the distribution of estates over fifty hectares (123.6 acres) in lots of 12½ hectares to each peasant.

Industrialization made considerable progress under a 5-year plan covering the years 1951–55 which emphasized the iron, steel, metal, machinery and other heavy industries. The Soviet half-share in Soviet-Rumanian joint companies, which controlled the major industries, was sold to Rumania in 1954. Industries directly connected with agriculture, such as flour milling, distilling and brewing, are still of basic importance. Probably the most important industries are food processing, textiles, metals, chemicals, wood and paper. All but the smallest business enterprises have been completely nationalized.

Foreign trade is under complete government control. Exports in 1950 were $239,000,000; imports, $213,000,000. The U.S.S.R. took 58% of the exports and supplied 49% of imports; Czechoslovakia, Poland, Hungary and Bulgaria took 30% of exports and supplied 33% of imports. Principal exports are ordinarily petroleum products, cereals and cereal products, wood and wood products. Leading imports are iron and manufactures, machinery and motors, vegetable fibers and products.

The Danube, flowing along the southern border for more than 200 miles, is a highly important commercial artery. Transshipment between seagoing vessels and river barges is made at Galati and Braila. The principle of freedom of navigation on the Danube for all nations was recognized in the 1947 peace treaty. The principal seaport is Constanta. Railway mileage in 1953 was 7,363; highway mileage in 1945 was 43,163.

The 1954 budget provided for revenue of 40,838,000,000 lei and expenditure of 39,388,000,000 lei, including 17,000,000,000 lei invested in the national economy.

NATURAL FEATURES AND RESOURCES. CLIMATE. The Carpathian Mountains divide Rumania's upper half from north to south and connect near the center of the country with the Transylvanian Alps, running east and west.

North and west of these ranges lies the Transylvanian plateau, and to the south and east are the plains of Moldavia and Walachia. In its last 190 miles, the Danube River flows through Rumania on its way to the Black Sea in northern Dobruja, just south of the border of the Soviet Union.

By far the most valuable of Rumanian minerals is oil, produced chiefly in

esti region about 35 miles north of charest. Production in 1953 was officially mated at 9,300,000 metric tons (about 00,000 barrels).

Natural gas from Transylvania is the ond most important mineral, coming to 00,000,000 cubic meters in 1950. Other portant minerals are iron ore (1953: ut 661,000 tons), lignite (1953: 5,700,- tons), copper, gold and silver.

The Moldavian-Walachian region has hot mmers and extreme frosts and blizzards winter. Variations are less extreme in nsylvania and the Banat. Bucharest's rage summer temperature is 72°; win- 27°. In some winters the Danube is -bound for as long as three months. nfall, heaviest in summer, averages 20 inches annually.

El Salvador (Republic)

(República de El Salvador)

rea: 13,176 square miles.
opulation (est. 1954): 2,122,000 (mes-, 78%; Indian, 11%; white, 11%).
ensity per square mile: 161.1.
resident: Oscar Osorio.
rincipal cities (est. 1953): San Sal-lor, 180,713 (capital); Santa Ana, 56,952 ffee); San Miguel, 28,730 (coffee, nequén).
Ionetary unit: Colón.
anguage: Spanish.
eligion: Roman Catholic.

STORY AND GOVERNMENT. El Salva- is the smallest, most densely populated Central American nations, and the only e without an Atlantic coast line.

Pedro de Alvarado, a lieutenant of Cor-, conquered El Salvador in 1525. The a was administered as part of Guate-la until the general Central American olution against Spain in 1821. El Sal-lor struck out as an independent re-blic in 1839 after the dissolution of the ntral American Union. Its story since en has been largely one of revolution d strife.

n Jan. 1931, the first free election in years brought in Arturo Araujo as Pres-nt. He was overthrown before the year s over. General Maximiliano Hernández rtínez, his successor, remained in power til May 1944, when a general strike ced his resignation. The next regime, o militarist-led, lasted only five months, d was succeeded March 1, 1945, by a ime headed by Salvador Castañeda Cas-, who was ousted Dec. 14, 1948, by a olutionary junta. Major Oscar Osorio, e of the junta's members, was named sident in the March 1950 elections.

The Constitution provides for a Presi-nt, popularly elected for six years and rmally ineligible to succeed himself; also, a one-house legislature of 54 members. The military forces include an army limited to 3,000, a militia, a national guard and a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory; both public and private schools are state-controlled. In 1950, 57.7% of those 10 years of age and over could not read and write. Primary schools in 1954 numbered 2,032 with 210,125 pupils; secondary schools numbered 126 with 12,376 students. The national university had an enrollment of 1,315 students in 8 faculties.

Mestizos (mixed white and Indian) are the predominant racial group. There are no tribal Indians.

El Salvador is one of the most intensively cultivated countries in Latin America. Coffee, which accounts for 85 per cent of the total exports (1954–55 production: 1,325,000 bags of 132 lb. each) is controlled in volume by a commission of officials and planters. Cotton is second in importance. Corn, sugar cane, beans, rice, tobacco, cacao, indigo, millet and sisal fiber are other products. There is some cattle raising and a few local factories.

El Salvador's largest national enterprise, the Lempa river hydroelectric project, went into partial operation during 1953.

Exports in 1954 totaled 262,300,000 colones; imports, 216,800,000 colones. About 70% of the trade is with the U. S.

The two railways have 385 miles of track. Roads (1954) included paved, 375 miles; other all-weather, 375 miles; unimproved, 1,200 miles.

The 1955 budget estimated revenue at $62,212,774 and expenditure at $65,100,000. The foreign debt on Dec. 31, 1953, was $7,522,000; internal, $3,837,000.

NATURAL FEATURES AND RESOURCES; CLIMATE. Most of El Salvador is a fertile volcanic plateau about 2,000 feet high. There are several volcanoes, some still active, and many lovely crater lakes.

Gold, silver, coal, copper, iron, zinc, mercury and sulfur are the nation's chief minerals. Gold production in 1954 totaled 5,325 troy ounces; that of silver, 256,772 ounces.

Forest resources, much smaller than in other Central American states, include dyewood, mahogany, cedar and walnut. El Salvador is a leading source of balsam.

Mountain ranges along the borders of Guatemala and Honduras give the highlands an almost temperate climate, but the lowlands are often hot and sultry. Temperatures at San Salvador range from about 59° (average daily low) in January to 85° (average daily high) in December; these

are the two coolest months. The rainy season lasts from May to October.

San Marino (Republic)

Area: 38 square miles.
Population (est. 1953): 13,500 (mostly Italian).
Density per square mile: 355.3.
Executive: two Regents selected every six months by the Grand Council.
Principal town: San Marino (est. pop. 2,000) (capital).
Monetary unit: Lira.
Language: Italian.
Religion: Roman Catholic.

San Marino, the oldest and smallest republic in the world, is one-tenth the size of New York City. It is entirely surrounded by Italy, in the Apennines near Rimini. According to tradition, San Marino was founded about A.D. 350 and had good luck for centuries in staying out of the interminable wars and feuds on the Italian peninsula. The Pope recognized its independence in 1631.

San Marino hires its police and judges from Italy. It no longer confers titles for a consideration, but it does derive much revenue from the exporting of its postage stamps, which are changed often to keep philatelists buying. Other exports are barley, wine and cattle, as well as building stone from Mount Titano.

Executive power is exercised by Regents, two of whom are appointed every six months from the popularly-elected Grand Council. There are several primary schools and a high school.

The electric railway connecting San Marino with Rimini on the Adriatic was destroyed during World War II.

Saudi Arabia (Kingdom)

Area: c. 597,000 square miles.*
Population (est. 1952): 7,000,000.
Density per square mile: 11.7.
King: Sa'ud ibn Abd al Aziz al Sa'ud.
Prime Minister: Emir Faisal.
Principal cities (est.): Mecca, 150,000 (joint capital, religious center); Riyadh, 60,000 (joint capital); Medina, 45,000 (religious center); Jidda, 40,000 (chief port).
Monetary unit: Riyal.
Language: Arabic.
Religion: Mohammedanism.

* Excluding the uninhabited Rub al-Khali desert (about 193,000 square miles).

The kingdom of Saudi Arabia, which occupies most of the Arabian peninsula, is almost entirely the creation of King Ibn Sa'ud (1882–1953). Its earlier history is that of Arabia. Descendant of earlier Wahhabi rulers, Ibn Sa'ud seized the emirate of Riyadh in 1901, at the age of 20, and soon set himself up as the leader of the Arab nationalist movement. By 1914 he had reconquered all of Nejd and Hasa. Remaining neutral during World War I, he resumed his drive after the war and through a series of local military campaigns was able to proclaim himself King of Hejaz and Nejd and dependencies in 1927. The united kingdom of Saudi Arabia was proclaimed in 1932. Saudi Arabia remained neutral until nearly the end of World War II but was one of the original members of the U. N. and joined the Arab League in 1945. King Ibn Sa'ud died Nov. 9, 1953, and was succeeded by Sa'ud (born 1905), the eldest of his many sons.

Saudi Arabia is a nearly absolute monarchy. A Council of Ministers headed by the Prime Minister was formed in Oct. 1953. Hejaz and Nejd are under separate administrations. Tribal organizations are influential. There is a small army.

The majority of the inhabitants are Bedouin—nomads following their flocks over the desert. The population is predominantly Sunni Moslem, and the religious law of Islam is the common law of the land. Mecca and Medina are the leading religious centers of Islam and the annual influx of pilgrims to those cities is the most important commercial activity outside the oil industry.

Saudi Arabia's desert climate restricts agriculture to the highlands of Asir and scattered oases. Dates are the staple crop; grain, fruits and vegetables are also grown. Camels, sheep and goats are raised and some animal products, such as hides, wool and ghee (clarified butter), are exported. Local industries include tanning, weaving and pottery making.

Most transportation continues to be by sea and by camel caravan, although roads and motor tracks now connect the major centers. A railroad from Damman to Riyadh (345 mi.), completed in 1951, is being extended across the peninsula to Medina and Jidda.

The kingdom's budget for the fiscal year 1954–55 estimated revenue at U. S. $305,940,000 and expenditure at $361,330,000; the deficit was to be met from the general reserve fund. Direct payments from oil concessions in the form of royalties and income taxes were estimated at $257,700,000 in 1954–55.

Oil, discovered in 1936 in the province of Al Hasa along the Persian Gulf, is produced by the U. S.-owned Arabian-American Oil Co. (Aramco). The main production centers are Dharan, Abqaiq, Qatif and Ain Dar. Production has skyrocketed since World War II. The company's expenditures and payroll are important invisible exports and oil revenues have greatly strengthened the financial position of the kingdom which receives one-half the company profits. The oilfields are connected by pi

with the Mediterranean port of Sidon, anon. In 1954 production totaled 347,-350 barrels; the crude run at the Ras ura refinery was 79,844,596 barrels.

Siam. See Thailand

Spain (Nominal Monarchy)

(España)

rea: 194,945 square miles.
opulation (est. Dec. 31, 1954): 28,863,- (Spanish, Basque, Catalan).
ensity per square mile: 148.1.
hief of State: Francisco Franco y amonde.
rincipal cities (est. Dec. 31, 1954): rid, 1,756,611 (capital); Barcelona, 1,-584 (chief port, textiles); Valencia, 463 (silk, oranges); Sevilla (Seville), 018 (wines, iron ore); Málaga, 293,138 port); Zaragoza (Saragossa), 275,276 center).
onetary unit: Peseta.
anguages: Spanish, Basque, Catalan.
eligion: Roman Catholic.

TORY. Spain, twice the size of Oregon, once one of the world's great powers. n 201 B.C. to A.D. 406, it was part of Roman Empire. Then the Goths and Vandals formed a powerful kingdom, ch was partially conquered in the 8th ury by the Moors from Africa. The last rish stronghold, the kingdom of Gra-a, fell to the forces of King Ferdinand Queen Isabella, who were trying to y Spain, in 1492. In the same year, the nish-financed explorer Christopher Co-bus was discovering the new world for Spanish Crown.

harles V (1516–55) became King of n and also Holy Roman Emperor. Un-his son, Philip II, Spain reached the of its power, but the beginning of ine set in with Britain's defeat of the vincible" Armada in 1588.

he line of Spanish Hapsburgs ended in , and the War of the Spanish Succes- followed. By the Treaty of Utrecht 3) Spain was forced to accept a Bour- King, the Duke of Anjou, and lost Gi-tar and all holdings in the Netherlands southern Italy. Then, while the Span-s were resisting Napoleon's efforts to blish a Bonaparte line in Spain, most heir colonies in America revolted and me independent. The loss of Cuba, rto Rico and the Philippines in the nish-American War of 1898 left Spain only a few scattered possessions in ca. Neutrality was maintained during ld War I.

rom 1923 to 1930, Spain was a military atorship under General Miguel Primo Rivera. A wave of republicanism in 1931 ed the abdication of King Alfonso , and a new Constitution was drawn declaring Spain to be a workers' republic. Several revolts, strikes and shifts of government kept Spain in political chaos, and on July 18, 1936, the army revolt led by General Francisco Franco burst into civil war. While Hitler and Mussolini helped Franco, Russia helped the Loyalist side. The last Loyalist forces surrendered on March 29, 1939. Spain became a dictatorship under Franco and signed the anti-Comintern pact in 1939.

While Franco shied away from the risk of becoming a belligerent in World War II, he was pro-Axis in sympathy, helped the Axis with supplies, intelligence and services to German U-boats, and even sent the Spanish Blue Division to help fight the Russians.

On Sept. 26, 1953, the U. S. and Spain signed three agreements providing for the use and development by U. S. forces of certain Spanish air and naval bases in return for U. S. military and economic aid to Spain.

GOVERNMENT. Franco is head of the state, national chief of the Falange party, Prime Minister and *Caudillo* (leader) of the empire. Practically, the country is ruled by the Cabinet (appointed by Franco), the National Council of the Falange party and, to a lesser extent, the Cortés (parliament). The principal function of the Cortés is the planning and formulation of laws without prejudice to Franco's veto power. Cabinet ministers, party officials, civil governors, university heads, and the presidents of learned bodies become members of the Cortés ex-officio. There is no provision for the introduction of legislation by any of the members.

In a referendum held July 6, 1947, the Spanish people approved a Franco-drafted succession law declaring Spain a monarchy again. Franco, however, is to continue as Chief of State and upon his death or incapacity the government and a Council of the Realm constituted by the law are to nominate as King "that person of royal blood who is most qualified by right," subject to the approval of the Cortés. The law reserves to Franco the right to nominate his own successor, subject also to the Cortés approval by two-thirds vote.

DEFENSE. Franco is commander in chief of the army, navy and air force, each administered by a cabinet minister responsible to him. Military service is compulsory for two years. The standing army is estimated at 425,000 men. The navy in Dec. 1954 had 6 cruisers, 24 destroyers, 6 submarines, 10 frigates and escort vessels and many smaller vessels. Several destroyers and smaller vessels were under construction. The budgetary allotment for defense is about 40 per cent.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Primary education is compul-

sory and free; religious instruction is permitted. In 1947, 20.8% of those 5 years of age and over could not read and write. In 1951–52 there were 59,428 public primary schools with 4,208,651 pupils, 119 secondary schools (1951) with 221,809 pupils, 53 normal schools (1951) with 21,210 students and 12 universities (1952) with 51,633 students.

Agriculture. Spain is predominantly agricultural, although there are extensive non-arable areas. The principal land uses, apart from forest, pasture and forage crops, are the production of grain, potatoes, pulse, sugar beets, oranges, grapes and olives. Since the civil war Spain has not recovered balance in production and consumption of foodstuffs. Normally, Spain produces exportable quantities of oranges, lemons, almonds, filberts, raisins and other subtropical commodities. Wine production in 1954 was about 462,000,000 U. S. gallons (1949–53 average: 459,900,000 gallons); olive oil production was 276,000 metric tons.

Livestock, also important, included in 1950, 4,200,000 cattle, 16,000,000 sheep and (1951) 4,222,000 goats and 2,670,000 hogs. Wool production in 1954 was 26,000 metric tons, clean basis.

PRINCIPAL CROPS
(thousands of metric tons)

	1952	1953	1954*
Wheat	4,114	3,041	4,541
Barley	1,677	1,492	2,135
Rye	495	406	487
Oats	490	434	542
Maize	635	707	691

* Provisional.

TRADE. Statistics of foreign trade are as follows, in millions of U. S. dollars:

	1952	1953	1954
Exports	408	482	459
Imports	518	596	615

In 1953 the chief customers other than the Spanish colonies were Britain (16%), western Germany (13%) and the U. S. (10%). Leading suppliers other than the colonies were the U. S. (12%), western Germany (12%) and France (11%). Leading exports in 1953 were oranges (18%), wine (5%) and iron ore (5%). Major imports were raw cotton, chemical products (especially fertilizer), wheat, petroleum and tobacco.

Industry. The textile industry, concentrated in Catalonia and normally employing over 300,000 workers, leads all others. The paper and chemical industries are also important. Pig iron production in 1954 was 862,158 metric tons; steel production, 1,096,962 tons. On March 31, 1955, 59 vessels of 170,292 gross tons were under construction.

Communications. The merchant fleet which suffered severely during the civil war and World War II, comprised 1,16[illegible] vessels (100 tons and over) of 1,312,60[illegible] gross tons on June 30, 1954, according to *Lloyd's Register.* The highway system is about 80,000 miles and the railway system about 11,200.

Finance. Recent data (budget estimates) are as follows, in millions of pesetas:

	1950–51*	1952–53*	1954–5[illegible]
Revenue	17,847	22,208	26,07[illegible]
Expenditure	17,941	22,477	26,34[illegible]

* Data are for each year in indicated biennial budgetary period.

The public debt on Dec. 31, 1954, was 86,896,666,311 pesetas, including treasury bonds and guaranteed obligations.

NATURAL FEATURES AND RESOURCES

CLIMATE. Spain, less than ten miles from Africa at the closest point, and separated from France by the Pyrenees, is generally a broad plateau sloping to south and east and crossed by a series of mountain ranges and river valleys. Most of the coast line is steep and rocky, with few indentations.

Minerals. Spain's mineral wealth, second to agriculture in the national economy, yields millions of tons of ore. Following are production figures for 1954, metric tons; coal and lignite, 14,120,45[illegible] iron ore, 4,034,648; lead ore, 86,673; zinc ore, 158,156; potash ore, 1,219,200; mercury (1953), 1,431. Spain also produces copper, gold, magnesite, sulfur, tungsten, phosphates, silver and, reportedly, uranium.

Forests and Fisheries. Spanish forests yield lumber, pine resins, cork and esparto. Some 100,000 persons work in the fishing, canning and related industries. The 1953 catch, principally cod, tunny and sardines, was 568,730 metric tons, valued at 3,229,702,[illegible] pesetas.

Climate. Most of Spain's weather is extreme. Madrid, for example, reaches a high of 110° and a low of 10°. In the southeast the protection of the Sierra Nevadas ma[illegible]

SPANISH COLONIAL POSSESSIONS

Country	Area, sq. mi.	Popula[illegible] est. 19[illegible]
Spanish Morocco		
Northern Zone	7,592	1,013,[illegible]
Southern Zone	10,039	13,[illegible]
Ifni	741	44,[illegible]
Ceuta, Melilla, Alhucemas, Chafarinas and Peñon de Velez	82	142,[illegible]
Spanish Sahara		
Rio de Oro	78,362)	38,[illegible]
Saguia el Hamra	32,047)	
Spanish Guinea	10,852	202,[illegible]

For Spanish Morocco, *see* Morocco.

he climate subtropical. The northeast, ith climate much like that of the British les, is the only region with normal rain- ll.

OUTLYING ISLANDS. Off Spain's east oast in the Mediterranean are the Bal- aric Islands, which total 1,936 square iles. The largest is Majorca (1,405 sq. i.). Sixty miles west of Africa are the anary Islands (2,804 sq. mi.).

Sweden (Kingdom)

(Sverige)

Area: 173,341 square miles.
Population (est. Dec. 31, 1954): 7,234,664 practically all Swedish).
Density per square mile: 41.7.
Sovereign: King Gustavus VI.
Prime Minister: Tage Fritiof Erlander.
Principal cities (est. Dec. 31, 1954): Stockholm, 776,947 (capital); Göteborg, 373,433 (chief port, shipbuilding); Malmö, 205,640 (seaport); Norrköping, 88,295 (tex- iles); Halsingborg, 73,342 (seaport).
Monetary unit: Krona.
Language: Swedish.
Religions: Swedish Lutheran, 99%; others, 1%.

HISTORY. Although ancestors of today's Swedes lived in the area as long as 5,000 years ago, little is known of Sweden be- fore the 10th century. Before 1100, King Olaf Sköttkonung had united Sweden into a strong nation and established Chris- tianity. In 1397 Sweden was united with Norway and Denmark under the Union of Kalmar. After the murder of several prom- inent Swedes by Christian II of Denmark in 1520, Sweden revolted under the leader- ship of Gustavus Vasa. Gustavus, elected King in 1523, founded the modern Swedish state and was the first European monarch to break relations with the Pope.

By the Treaty of Westphalia (1648) which concluded the Thirty Years' War (during which Gustavus Adolphus scored a number of brilliant military successes), Sweden acquired important German areas, including large portions of Pomerania. In 1700, Poland, Denmark and Russia united against Sweden. When peace was finally concluded in 1721, Sweden gave up Li- vonia, Estonia, Ingria and parts of Fin- land. Sweden participated in the coalition against Napoleon (1805–07) but in 1809 Finland was lost to Russia. Following the ouster of King Gustavus IV in 1809, a constitutional law still in effect was adopted, after which Charles XIII, uncle of Gustavus IV, was elected King. Since Charles XIII was childless, one of Napo- leon's marshals, Jean Bernadotte, was elected Crown Prince and took over effec- tive control of the government, succeeding to the throne in 1818 as Charles XIV. By the Treaty of Kiel (1814), Sweden acquired Norway from Denmark in return for Pome- rania. The union with Norway lasted un- til 1905, at which time it was peacefully dissolved.

Neutrality was maintained through both World Wars. Sweden did not join the North Atlantic Pact in 1949.

SOVEREIGN. Gustavus VI, born Nov. 11, 1882, married (1) 1905, Princess Margaret Victoria (born 1882, died 1920); (2) 1923, Princess Louise Mountbatten (born 1889). To his first marriage was born Prince Gus- tavus Adolphus (born Apr. 22, 1906, killed in air crash Jan. 26, 1947), who was married in 1932 to Sibylle, Princess of Saxe-Coburg- Gotha; their offspring include a son, Carl Gustavus, the heir apparent, born April 30, 1946, and four daughters. Gustavus VI became King Oct. 30, 1950, on the death of his father, Gustavus V, who had reigned since 1907.

GOVERNMENT AND DEFENSE. Executive and judicial authority is vested in the King alone, but his resolutions must be taken in the presence of the Council of State (cab- inet), headed by the Prime Minister; the Council is appointed by the King but is responsible collectively to the Riksdag (parliament).

The Riksdag has an upper chamber of 150 members elected indirectly by the provincial and municipal councils for eight years, one-eighth being renewed each year. The lower chamber of 230 members is di- rectly elected by popular vote for four years. There is universal suffrage for men and women over 21. The King has the right to initiate legislation and has an absolute veto over all bills except those relating to taxation.

Standings in the lower chamber (elec- tions of Sept. 21, 1952): Social Democrat 110, Liberal 59, Conservative 31, Agrarian 25, Communist 5.

Defense. Military service is compulsory from the ages of 20 to 47; the initial train- ing period is 15 months. The King is com- mander in chief of all the armed forces. The army, numbering about 60,000, with a trained reserve of 600,000, is well-equipped with the latest type weapons, many of them developed in Sweden. The air force has 600 planes. The navy in Dec. 1954 had 3 cruisers, 2 coast defense ships, 12 fleet destroyers, 9 escort vessels, 21 subma- rines, 2 minelayers and numerous smaller craft. Naval personnel numbers about 10,- 000 in addition to coast artillery, under naval jurisdiction.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Public elementary education has been free and compulsory since 1842. Illiteracy is practically unknown. In 1952 there were 730,000 pupils in regu- lar elementary schools as well as 151,000

pupils in regular secondary schools. The two universities—Uppsala and Lund—and four other schools of university grade had a total enrollment of 12,677 in 1952. The state also provides a large number of special vocational and continuation schools. The national church is the Swedish Lutheran Church, of which the King is supreme administrator.

Agriculture. Grain, hay, potatoes and sugar beets are products of the broad fertile plains of the south; cattle raising and dairy farming predominate in the north. Production of major crops in 1954 was as follows, in metric tons: wheat, 1,020,000; rye, 301,000; maize, 360,000; oats, 861,000; mixed grain, 656,000; sugar beets, 1,848,000; potatoes, 1,429,000. The 1954 livestock estimates showed 335,000 horses, 2,555,000 cattle, 203,000 sheep and 1,614,000 hogs. Butter production in 1954 was 92,577 metric tons; cheese, 55,268 tons; milk, 4,353,000 tons.

Industry. The highly specialized machine industry produces separators, motors, electrical machines and apparatus, agricultural machinery, ball bearings, telephone equipment and harbor works. Pig iron production in 1954 totaled 939,000 metric tons; production of raw steel in the same year totaled 1,835,000 tons.

There are also large woolen, glass and porcelain industries. Shipyards build for both Swedish and foreign fleets; on March 31, 1955, 72 vessels of 406,545 gross tons were under construction. The timber and woodworking industries are extensive. The match industry is a single trust which covers the whole world.

Trade. Statistics of foreign trade are as follows, in millions of kronor:

	1952	1953	1954
Exports	8,134	7,659	8,218
Imports	8,952	8,172	9,198

Leading exports in 1954 were wood pulp (18%), machinery and apparatus (12%), timber (11%) and iron ore (9%). Leading customers were Britain (19%), western Germany (12%), Norway (10%) and Denmark (7%). The chief suppliers were western Germany (20%), Britain (16%), the U. S. (8%) and Norway (7%). Leading imports included machinery, petroleum and products, textiles and clothing and automobiles.

Communications. On June 30, 1954, the merchant marine comprised 1,256 ships (100 tons and over) of 2,703,467 gross tons, largely efficient motor vessels. The highly developed railway network totaled 10,300 miles in 1953, and there were about 56,265 miles of highway, mostly improved. By means of ferry steamers, Swedish state railways are connected directly with both Germany and Denmark.

Finance. Recent data are as follows, in millions of kronor:

	1953–54	1954–55*	1955–56*
Revenue	8,535	8,599	9,909
Expenditure	8,130	8,756	9,909

* Budget estimate.

The public debt was 15,059,000,000 kr. on Dec. 31, 1954.

NATURAL FEATURES AND RESOURCES; CLIMATE. Sweden, with extreme length of about 990 miles and breadth of 250 miles, slopes eastward and southward from its peak elevation in the Kjölen mountains along the Norwegian border. In the north are mountains and many lakes. To the south and east are central lowlands, and south of them are fertile areas of forest, valley and plain. Along Sweden's rocky coast, chopped up extensively by bays and inlets, are many islands, the largest of which are Gotland (1,220 sq. mi.) and Oland (519 sq. mi.). The country is landlocked to the north.

Minerals. Sweden's high-grade iron ore deposits are among the world's richest. Those in central Sweden produce principally for domestic use, while the ones in Lapland to the north are worked largely for export, with much of the output being shipped through the Norwegian port of Narvik. Production in 1954 was 15,384,000 metric tons. Gold production was 103,000 troy oz. Other major minerals are copper (31,280 tons), lead (20,298 tons), arsenic ore (56,000 tons), manganese ore (4,731 tons) and silver (2,077,983 oz.). Coal production (267,000 tons in 1954) is comparatively small; imports of several million tons a year are therefore necessary. Deposits of uranium have been reported in Sweden.

Forests and Fisheries. About 60 per cent of Sweden is forested, mostly in pine, and there are vast forest products industries in the north. Sweden supplies a large percentage of the world's mechanical and chemical pulp. In 1953, 3,200,000 metric tons of wood pulp, 341,000 tons of newsprint, 759,000 tons of other paper and 145,000 tons of cardboard were produced.

The average annual catch of fish is about 140,000 tons, half of it in small Baltic herring. Cod, mackerel and sprat also are taken in the Baltic, and the inland lakes and rivers are well stocked with salmon, trout and perch. The catch in 1954 (sea and coast fisheries) was 187,000 metric tons, valued at 125,000,000 kr.

Climate. Sweden's climate is diversified. The warmest month is usually July, with a mean temperature of 62° in Stockholm. February is the coldest month, with a mean average below 32° for all Sweden (25.7° at Stockholm). Average annual rainfall in the north is 16.5 inches; in the south, 22.5 inches.

Switzerland (Republic)

(Schweiz-Suisse-Svizzera)

Area: 15,940 square miles.
Population (est. Dec. 1954): 4,950,000
wiss, 91.2%; German, 3.6%; Italian,
%; French, .9%; others, 1.2%—figures by
ace of birth).
Density per square mile: 310.5.
President (1955): Max Petitpierre.*
Principal cities (est. Dec. 1954): Zürich,
4,000 (textiles, banking); Basel, 192,900
ail center, Rhine port); Geneva, 157,300
itellectual center); Bern, 155,600 (capi-
).
Monetary unit: Swiss franc.
Languages: German, 71.9%; French,
.4%; Italian, 6.0%; Romansch, 1.1%;
hers, .6%.
Religions: Protestant, 57%; Roman
atholic, 41%; Jewish, .4%; others, 1.6%.
* The vice president ordinarily becomes president the
xt year. Vice-president in 1955: Markus Feldmann.

ISTORY. Swiss history is principally the
ory of the federation of various fiefs of
e Holy Roman Empire into a single
nion for common defense. The process be-
an in 1291, with the cantons of Uri,
chwyz and Nidwalden as the nucleus.
ver the next 300 years, ten new cantons
ntered the federation, which nominally
mained part of the Holy Roman Empire
ntil the Treaty of Westphalia gave it in-
ependence in 1648.

The French revolutionary army suc-
eeded in occupying Switzerland in 1798
nd organized it as the Helvetic Republic,
ut Napoleon restored the federation in
803. The Congress of Vienna (1815) de-
lared Switzerland an independent, neutral
tate in perpetuity, and fixed the nation's
orders as they exist today. Out of the
rief Swiss civil war of 1847 came the
emocratic Constitution of 1848, which was
nfluenced by the Constitution of the
nited States.

Switzerland maintained strict neutrality
n World Wars I and II, during which its
iplomatic delegations represented the in-
erests of many of the belligerents.

GOVERNMENT AND DEFENSE. Since the
doption in 1874 of their present Constitu-
ion, the Swiss have had a federation of 22
overeign cantons. Each canton has its own
egislature, executive and judiciary depart-
ients, with the right of veto over federal
egislation through referendum.

The Federal Assembly has two houses—
, Council of States of 44 members, two
rom each canton, and a National Council
f 196 members elected for four-year terms.
The seven members of the Cabinet (Fed-
ral Council) are elected for four years by
he Federal Assembly, which also elects the
Swiss President from among its own mem-
ers for a period of one year. The federal
government is supreme in matters of war,
eace and treaties, and regulates the army,
ailroads, postal service, mints and national
ank note issues.

In peacetime, the highest Swiss army officer is a colonel. In wartime a commander in chief is named with rank of general. Since the army is a national militia, it maintains no standing forces, but military service is compulsory from the ages of 18 to 60, with an initial training period of about three months and an 11-day refresher course once a year. The force of men trained and physically fit is about 650,000. The air force has about 5,000 personnel and 400 planes.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is compulsory, free and locally controlled. In 1951–52 primary schools had 476,331 pupils and secondary schools had 80,207. There are seven universities, with 12,462 students in 1952–53.

Religious freedom is guaranteed under the constitution. German, Italian and French were recognized as national languages in 1874, and Romansch, a dialect of the Alpine regions, was also made official in 1937.

With nearly a fourth of its land unproductive, and with half of it in pasture or forest area, Switzerland is dependent on imports for food supply. Wheat, potatoes, fruits, oats, barley, rye, sugar beets and grapes are grown, but stockraising and dairy farming account for three-fourths of the agricultural production. In 1954 there were 1,593,000 cattle, 950,000 hogs and 125,500 horses. Production of cheese in 1954 was 50,760 metric tons; of butter, 28,320 metric tons.

Manufacturing is the principal economic activity, with more than 40 per cent of the population being sustained by manufactures or mechanical pursuits. Industry is conducted largely in small plants using highly skilled workers. Almost all the raw materials are imported, and products consist almost exclusively of high grade, expensive commodities. In 1954 there were 11,850 factories with 564,311 workers.

Manufactures include chemical products, machines, watches, textiles, aluminum, precision instruments, lumber, shoes and fine handmade embroidery. Chief agricultural industries are the manufacture of fine cheeses and condensed milk. With its many scenic attractions, Switzerland draws the heaviest and most profitable tourist trade in Europe.

Switzerland is dependent on foreign trade for its prosperity. Trade statistics are as follows, in millions of Swiss francs:

	1952	1953	1954
Exports	4,749	5,165	5,272
Imports	5,206	5,071	5,592

In 1954 the leading customers were western Germany (12%), the U. S. (12%), Italy (9%), France (7%) and Britain (5%). Leading suppliers were western Germany (22%), the U. S. (13%), France (11%),

Italy (10%) and Britain (6%). Leading exports were machinery (21%), clocks and watches (20%), chemicals and drugs (16%) and textiles and clothing (12%).

The Rhine, navigable from Basel to the North Sea, is the principal inland waterway. Railways built over rugged terrain, entailing construction of many bridges and tunnels, total about 3,350 miles, mostly electrified. Road mileage is about 10,500.

Financial data in millions of Swiss fr.:

	1953	1954*	1955†
Revenue	1,974.8	2,320.2	1,906.5
Expenditure	1,884.0	1,959.2	1,875.2

* Provisional. † Budget estimate.

The debt of the Confederation alone (excluding the railway debt) was 7,772,700,000 fr. on Dec. 31, 1954.

NATURAL FEATURES; CLIMATE. Most of Switzerland comprises a mountainous plateau bordered by the great bulk of the Alps on the south and by the Jura Mountains on the northwest. Its greatest length is 226 miles, greatest width, 137 miles. About a fourth of the total area of Switzerland is covered by scenic mountains and glaciers.

The country's largest lakes, Geneva, Constance (Boden See) and Maggiore, straddle the French, German-Austrian and Italian borders, respectively.

The climate is temperate and varies greatly with altitude. The coldest month (January), for example, averages 31.8° at Basel, which is 909 feet in elevation, and 16.2° at Säntis, with altitude of 8,202 feet. July is the warmest month, with a mean of 66.4° in Basel and 41° at Säntis.

Syria (Republic)

Area: 73,587 square miles.
Population (est. 1954): 3,670,000 (Arab, Armenian, Kurdish, Turkish, French).
Density per square mile: 49.9.
President: Shukri al-Kuwatly.
Premier: Sabri al-Assali.
Principal cities (est. 1951): Aleppo (Alep), 371,897 (northern trading center); Damascus (Damas), 345,237 (capital); Homs, 121,044 (farming, silk); Hama, 87,884 (Bedouin trading center).
Monetary unit: Syrian pound (£S).
Languages: Arabic, Aramaic, French.
Religions: Moslem (Sunni), 69.8%; Moslem (Alawite), 11.0%; Greek Orthodox, 4.6%; Armenian Orthodox, 3.5%; Moslem (Druze), 3.1%; others (Syrian Orthodox and Catholic, Greek and Armenian Catholic, Israelite, etc.), 8.0%.

HISTORY. Ancient Syria was conquered by Egypt about 1500 B.C., and after that by Hebrews, Phoenicians, Assyrians, Chaldeans, Persians and Greeks. From 64 B.C. until the Arab conquest in A.D. 636, it was part of the Roman Empire except during brief periods. The Arabs made it a trade center for their whole empire, but it suffered severely from the Mongol invasion in 1260 and fell to the Ottoman Turks in 1516. Syria remained a Turkish province until World War I.

A secret Anglo-French pact of 1916 put Syria in the French zone of influence. The League of Nations gave France a mandate over Syria after World War I, but the French were forced to put down several nationalist uprisings. In 1930, France recognized Syria as an independent republic, but still subject to the mandate. After nationalist demonstrations in 1939, the French High Commissioner suspended the Syrian Constitution. In 1941, British and Free French forces invaded Syria to eliminate Vichy control. During the rest of World War II, Syria was an Allied base. Again in 1945, nationalist demonstrations broke into actual fighting, and British troops had to restore order. Syrian forces met a series of reverses while participating in the Arab invasion of Palestine in 1948. After Mar. 30, 1949, when the government was overthrown by Husni Zayim, there were several army *coups d'état*. That of Nov. 29, 1951, was engineered by Col. Adib Shishakly. Elected President in July 1953, Shishakly was ousted on Feb. 25, 1954, by the army, which named Hachem Bey el-Attassi President. On Aug. 18, 1955, Shukri al-Kuwatly was elected President.

GOVERNMENT AND DEFENSE. Under the 1950 Constitution, restored in 1954, legislative power is vested in a unicameral Parliament. Executive power is exercised by the President through the Premier and his Cabinet.

The Syrian army is organized around a cadre of *troupes spéciales* transferred from French to Syrian jurisdiction in 1945.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is compulsory. In 1952 Syria had 2,184 primary and 164 secondary schools, with total enrollment of 343,179. There is a university at Damascus.

Agriculture and animal breeding are the main industries. Only half the land is arable, and only a third is actually cultivated. Most crops require irrigation. In 1954–55 Syria grew 800,000 metric tons of wheat and 561,000 tons of barley. Other leading crops include sorghum, olives, cotton, grapes, lentils and tobacco. Stock-raising is important among nomads and semi-nomads.

Exports in 1953 totaled £S370,000,000; imports were £S307,000,000. Principal customers were Lebanon (24%), France (16%) and Britain (12%); leading suppliers, the U. S. (12%) and Lebanon, Britain and France (each 11%). Leading exports were ginned cotton, wheat, barley and wool.

In 1953 Syria had 4,332 miles of highway and 517 miles of railway.

ATURAL FEATURES; CLIMATE. Coastal ria is a narrow plain. Back of that is a nge of coastal mountains, and still far- er inland is a steppe area. In the east is e Syrian Desert, and in the southeast xt to Jordan is the Jebel Druze Range. he climate is subtropical, with rainfall eraging 50 inches on the coastal range ut diminishing to less than four inches parts of the desert. Summer tempera- res at Aleppo range from about 75° at ght to 100° during the day; winter mperatures, from freezing to 50°.

Thailand (Siam) (Kingdom)

(Muang Thai)

Area: 198,247 square miles.
Population (est. 1954): 19,925,000 (1937: hai, 90%*; Chinese, 3.4%; Indian and alayan, 3.4%; others, 3.2%).
Density per square mile: 100.5.
Ruler: King Rama IX.
Prime Minister: Luang Pibul Songgram.
Principal cities (census 1947): Bangkok Krung Thep), 827,290 (capital, chief ort); Khonkaen, 590,664 (trading center); hieng Mai, 534,623 (rice, teak); Chieng ai, 476,118 (northern trading center).
Monetary unit: Baht.
Languages: Thai (Siamese), Chinese.
Religions (census 1947): Buddhist, 89%; Ioslem, 4%; Christian and others, 7%.

* Including about 2,500,000 of Chinese descent born Siam.

ISTORY. The Siamese first began moving own into their present homeland from he Asiatic continent in the 6th century D., and by the end of the 13th century illed most of the western portion. During he next 400 years, the Siamese fought poradically with the Cambodians to the ast and the Burmese to the west. The ritish obtained recognition of paramount nterest in Siam in 1824, and in 1896 an nglo-French accord guaranteed Siamese ndependence.

A coup on June 24, 1932, changed the bsolute monarchy into a representative overnment with universal suffrage. Thus horn of much power, King Prajadhipok bdicated in March 1935 in favor of his ephew, Prince Ananda Mahidol. After five ours of token resistance on Dec. 8, 1941, Siam yielded to Japanese occupation and ecame one of the springboards in World Var II for the Japanese campaign against Malaya. After the fall of its pro-Japanese uppet government in July 1944, Siam ursued a policy of passive resistance gainst the Japanese, and on Aug. 16, 1945, fter the Japanese surrender, Siam repu- liated the declarations of war it had made gainst Britain and the U. S. in 1942.

By a treaty signed with Britain and In- lia Jan. 1, 1946, Siam renounced all war- ime acquisitions of Malayan territory and greed that no canal linking the Gulf of Siam with the Indian Ocean would be cut across Siamese territory without British concurrence.

RULER. Rama IX, who was born Dec. 5, 1927, second son of Prince Mahidol of Songkhla, succeeded to the throne on June 9, 1946, when his brother, King Ananda Mahidol, died of a gunshot wound. He was married on April 28, 1950, to Princess Kitiyakara; their son, Vajiralongkorn, born July 28, 1952, is heir apparent.

GOVERNMENT AND DEFENSE. Thailand is a constitutional hereditary monarchy. Under the 1932 Constitution, restored after the Dec. 1951 *coup d'état* to replace that of 1949, there is a unicameral Parliament, half nominated, half elected. The government is administered by the Prime Minister and his Cabinet, who are responsible to the Parliament.

The 1937 defense act made military service compulsory for a period of two years between the ages of 18 and 30. The army had about 50,000 men in 1954. There was also a militarized police force of about 40,000 men and a fair-sized air force. The navy in 1954 had 1 coast defense ship, 4 submarines, 4 frigates and escort vessels and other smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. Buddhist monasteries throughout Thailand control most of the elementary education in rural districts. In 1952 there were 364 government schools with 83,852 pupils, 18,584 local public and municipal schools, with 2,661,112 pupils and 1,284 private schools, with 267,943 pupils. The 5 institutions of higher learning had 10,656 students. Illiteracy was estimated at 68.9% in 1937.

Almost 90 per cent of the population work at agriculture. Rice (1954: 7,700,000 metric tons) is the principal crop, the staple food and the leading export. It is the basis of Thailand's whole economy and the key to its prosperity. Next most important is rubber (exports 1954: 118,600 metric tons). Other products include coconuts, corn, tobacco, cotton, sesame, sugar cane and soybeans. Livestock, poor in quality and quantity, is used mainly for hauling. Manufacturing is of little importance, except for native handicraft and food processing. Domestic business is largely controlled by Chinese.

Recent trade statistics are as follows (in millions of U. S. dollars):

	1952	1953	1954*
Exports	333.1	322.6	272.5
Imports	299.6	336.3	313.5

* Provisional.

Chief exports in 1954 were rice (49%), rubber (16%) and tin (7%). Leading customers in 1953 were Malaya and Singapore (29%), Japan (25%) and the U. S. (21%); leading suppliers, the U. S. (18%), Japan

(17%), Britain (13%) and Hong Kong (12%).

There are good water routes which handle about 80 per cent of all internal traffic. Bangkok, the chief port, 25 miles up the Chaupaya River from the Gulf of Siam, handles about 80 per cent of the foreign trade. Railways under government ownership total 2,032 miles, and in 1950 there were about 3,600 miles of highway.

The 1955 budget estimated revenue at 5,416,486,000 baht and expenditure at 5,677,038,000 baht.

NATURAL FEATURES AND RESOURCES; CLIMATE. Thailand, about three-fourths the size of Texas, supports most of its population in the central alluvial plain which is drained by the Chaupaya River and tributaries. There are small deposits of many important minerals, and some precious stones. Only tin, gold, tungsten and salt are in commercial production. Tin output in 1940 was 20,841 tons (10% of the world total), but production in 1953 was only 9,775 long tons (tin-in-concentrates).

Almost 70 per cent of Thailand's total land area is forested. Teak, the main forest product, covers over one-third of this area, chiefly in the northern hill country. Other forest products of Thailand include thingan wood, ironwood, ebony, rattan and sticklac.

Fisheries, both ocean and river, ordinarily rank second to agriculture in product value.

The climate is monsoonal, but the full force of the monsoons is broken by the western hills. Rainfall decreases from south to north. Humidity is always high, but temperatures fall as low as 40° in the November–February cool season. Inland temperatures often rise to 100° during the hot season.

Trans-Jordan. See Jordan

Trieste

This former free territory (293 sq. mi.) on the northeastern Adriatic was divided *de facto* between Italy and Yugoslavia under the provisions of a memorandum of understanding signed Oct. 5, 1954. Most of the area (202 sq. mi.) went to Yugoslavia; the smaller (91 sq. mi.) but far more densely populated part, including the city of Trieste, went to Italy.

The free territory had been created under the provisions of the Italian peace treaty of 1947 and was to be under U. N. protection. It proved to be impossible to implement the treaty provisions, and Yugoslav and Anglo-U. S. occupation forces had continued the occupation begun in 1945 of substantially the areas transferred to Yugoslavia and Italy, respectively, in 1954.

Turkey (Republic)

(Türkiye Cümhuriyeti)

Area: 296,185 square miles.
Population (est. 1954): 22,949,000 (Turkish, 94%; Greek, 2.2%; Bulgarian, 1.4%; Yugoslavian, .9%; others, 1.5%).*
Density per square mile: 77.5.
President: Celâl Bayar.
Premier: Adnan Menderes.
Principal cities (census 1950): Istanbul (formerly Constantinople), 1,018,468 (chief port, commercial center); Izmir (Smyrna), 362,340 (seaport); Ankara (Angora), 286,781 (capital); Adana, 117,799 (agricultural center); Bursa, 100,007 (silk, carpets); Eskisehir, 88,459 (trading center).
Monetary unit: Turkish pound (£T).
Languages: Turkish, Greek, Bulgarian.
Religions: Mohammedan, 98.6%; others, 1.4%.

* 1935, by place of birth.

HISTORY. The Ottoman Turks first appeared in the early 13th century A.D. Under the leadership of their Sultans, they gradually spread their hegemony over most of the Near East and the Balkans, capturing Constantinople in 1453 and storming the gates of Vienna in the 17th century. At the height of its power, the empire stretched from the Persian Gulf to the frontiers of Poland and from the shores of the Caspian Sea to Oran in Algeria.

The defeat of the Turkish navy at Lepanto in 1571 by the Holy League and of Turkish forces besieging Vienna in 1683 portended the decline of Ottoman power, reducing Turkey to the status of a pawn in Europe's political maneuvers. Russia moved into the Balkans in the 18th century and made herself official protector of the Balkan Christians. Fear of a Russian drive on Constantinople prompted England and France to declare war on Russia, and the Crimean War (1853–56) followed. As a result of the Russo-Turkish war (1877–78), Bulgaria became practically independent, and Rumania and Serbia threw off their nominal allegiance to the sultan. Further defeats were suffered by Turkey in a war with Italy (1911–12) and in the Balkan Wars (1912–13). Meanwhile, a revolt led by the Young Turks, an organization of youthful liberals, had forced the abdication of Sultan Abdul-Hamid in 1909 and established a constitutional regime.

On Aug. 2, 1914, at the outbreak of World War I, a secret alliance was signed between Germany and Turkey, whose army was advised by a German military mission and in September the Allies declared war on Turkey. Turkish forces successfully defended the strategic Dardanelles, but British forces seized Palestine, Mesopotamia

d Syria; and the Hejaz revolted. By 1918 lied forces held the territory along the rdanelles and the Bosporus, and later eek forces occupied Smyrna and its inity.

In 1919 the new Nationalist party, aded by Mustafa Kemal, was organized resist the Allied occupation, and in 1920 National Assembly elected Mustafa Kemal President of both the Assembly and e government. Under his leadership, the tionalist government was recognized by reign powers, the Greeks were driven out Smyrna, and other Allied forces were thdrawn. The present Turkish boundaries (with the exception of Alexandretta, ded to Turkey by France in 1939) were ed by the Treaty of Lausanne (1923) d later negotiations. The caliphate and ltanate were separated and the sultanate olished on Oct. 1, 1922. On Oct. 29, 1923, rkey formally became a republic with ustafa Kemal, who took the name of mal Atatürk, as its first President. He oceeded to carry out an extensive proam of reform, modernization and inistrialization.

The Montreux Convention (1936) gave rkey sole responsibility for the defense the area. On Aug. 7, 1946, Soviet Russia roposed in a note to Turkey that defense the Straits be made a joint Turkish-oviet responsibility under a revision of he Montreux Convention, but the proposal as opposed by both Britain and the U. S., well as by Turkey.

General Ismet Inönü was elected to suceed Kemal Atatürk on the latter's death 1938 and was re-elected in 1939, 1943 nd 1946, but was defeated in 1950 and ucceeded by Celâl Bayar. On Oct. 19, 1939, mutual assistance pact was concluded ith Britain and France. Turkey followed neutral course during most of World Var II, but on Feb. 23, 1945, she declared ar on Germany and Japan, but took o active part in the conflict. After he abrogation of the Soviet-Turkish nonggression pact in March 1945, Turkey as subjected to Soviet pressure for a hare in the control of the Dardanelles. o assist Turkey in effecting moderniza-ion necessary for the preservation of its ational integrity, the U. S. in 1947 agreed o advance $100,000,000, all of which was to e used for the armed forces or to a lesser xtent for economic projects directly reated to Turkish defense. Turkey has also eceived aid under the European Recovery rogram. It also became a full member of he North Atlantic Treaty Organization n 1952.

GOVERNMENT AND DEFENSE. The Constitution, as amended in 1937, defines the tate as "republican, nationalist, populist, tatist, secular, and revolutionary." The President is chosen from the deputies of the National Assembly; his term of office is identical with the life of each Assembly. The 541 members of the Assembly are elected by universal suffrage for a term of four years. According to the Turkish Constitution, the Assembly exercises the executive power through the President and the Council of Ministers (cabinet) which is appointed by him.

The Republican People's party, which had been in power since 1923, was overwhelmingly defeated in free elections held May 14, 1950, by the Democratic party. The latter was retained in office by an even wider margin in elections held May 2, 1954, in which it won 503 seats in the Assembly. Centralization is the basis of the governmental system. The pre-republic judicial system, based on Sunni Moslem law, was replaced in 1926 by a new system based on the Swiss civil code.

Defense. Military service is compulsory from 20 to 45; the initial training period is three years. The strength of the army, mobilized since 1939, was about 375,000 in 1954.

Large purchases of modern matériel were made during World War II, and additional armaments were received from the U. S. after the war. The air force, under the direct control of the Turkish General Staff, had a strength of about 1,000 planes in 1950. The navy has 1 battle cruiser, 10 fleet destroyers and 12 submarines, in addition to smaller craft, including a number of former U. S. and British minesweepers. A regimental combat team of 5,000 men was dispatched to Korea in 1950.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* Elementary education is nominally obligatory from 7 to 12. Only 24.2% of the whole population could read and write in 1945, but 43.2% of those 7 to 16 were literate in 1950. In 1951–52 there were 17,428 primary schools with 1,616,626 pupils and 494 secondary schools and *lycées* with 90,356 pupils. There were 34 institutions of higher learning with 27,585 students. The Latin alphabet replaced the Arabic script in 1928.

Agriculture and Industry. Agriculture is the principal economic activity, engaging about 65 per cent of the population. Only about 20 per cent of the land is under cultivation, but the government has made great efforts to modernize and improve farming. The most important cash crop is tobacco (1954: 100,000 metric tons). Cotton (1954: 142,000 metric tons, ginned) is grown in the south of Asia Minor while figs come exclusively from the Smyrna region. Principal grain crops, with 1954 production in metric tons, are wheat, 4,900,000; barley, 2,500,000; oats, 300,000; and maize, 914,000. Turkey is a leading exporter of olive oil; the Brusa region and the Ionian coast are the principal areas of cultivation.

Opium poppies are grown in the Smyrna, Malatia and Tokat regions.

Turkey is rich in livestock. The most important animal is the goat, of which there were 21,908,000 in 1952, including the valuable Angora, which thrives on the uplands of the plateau. There were also (in Dec. 1952) 10,697,000 cattle, 26,561,000 sheep and 1,217,000 horses. Total wool production in 1954 was 21,000 metric tons, clean basis.

Staple industries have been established in iron, steel, textiles, paper, glass, sugar and cement. In 1954, 195,600 metric tons of pig iron and 169,200 tons of steel were produced. A large proportion of the factories are government-operated. Istanbul is the major industrial area.

Trade. Turkey's foreign trade was as follows, in millions of Turkish pounds:

	1952	1953	1954
Exports	1,016.2	1,108.9	937.8
Imports*	1,556.6	1,491.1	1,339.4

* Includes military equipment imported under U. S. military assistance program.

Principal customers in 1954 were western Germany (18%), the U. S. (17%), Britain (7%) and Italy (6%). Leading suppliers were western Germany (18%), the U. S. (15%), Britain (9%) and France (7%). Chief exports in 1953 were tobacco (22%), raw cotton (20%), wheat (15%) and chrome (7%); leading imports, machinery, iron, steel, fuel and oil.

Communications and Finance. In June 1954, Turkey had a merchant fleet of 274 vessels (100 tons and over) aggregating 488,211 gross tons. The length of railways (1954) was 4,780 miles. Highway mileage (both state and provincial) was 30,583 in 1951.

Recent public finance data are as follows, in millions of Turkish pounds:

	1953–54*	1954–55†	1955–56†
Revenue	2,147	2,289	2,789
Expenditure	2,249	2,288	2,941

* Provisional. † Budget estimate.

The public debt, consolidated and floating, on December 31, 1954, was £T2,580,000,000.

NATURAL FEATURES AND RESOURCES; CLIMATE. Turkey is divided into two natural areas by the historic waterway formed by the Dardanelles, the Sea of Marmara and the Bosporus.

Turkey in Europe comprises an area about equal to the state of Massachusetts. It is hilly country drained by the Maritsa River and its tributaries. Almost all the population is concentrated in and near the two important towns, Istanbul (Constantinople) and Edirne (Adrianople). Turkey in Asia, or Anatolia, about the size of Texas, is roughly a rectangle in shape with its short sides on the east and west. Its center is a treeless plateau rimmed by mountains.

Minerals and Forests. Turkey's rich mineral resources are still comparatively unexploited. Deposits of copper in the large field at Arghana, near the Iraq-Syrian frontier, have been estimated at 1,600,000 tons (1954 output: 25,200 metric tons). Turkey is also relatively rich in coal, with large deposits in the Eregli region on the Pontic coast some 150 miles from Istanbul (1954 output: 5,710,000 tons). A virtual world monopoly is enjoyed in meerschaum, found in the Eskisehir district. Other important minerals of Turkey include chrome, manganese ore, iron ore, emery and antimony.

Climate. Along the coast from Antioch to the Dardanelles the climate is Mediterranean, with rainy winters and dry summers. Thence to the Bosporus it is transitional to the type of climate with heavy year-round rainfall. Semitropical fruits and tea may be grown in the region beyond Trebizond on the Black Sea. The western plateau has a harsh steppe climate, with cold winters, hot summers and scanty rainfall, while the eastern plateau exhibits a transition from steppe to alpine climate. Istanbul has a mean annual temperature of 57° (maximum 99°, minimum 17°) and average yearly rainfall of 28.3 inches. Rainfall occurs approximately one day out of three.

Union of Soviet Socialist Republics

Area (est.): 8,473,444 square miles* (8,173,666 in 1938).

Population (est. 1954): 214,500,000* (170,467,186 by 1939 census) (Great Russian, 58.4%; Ukrainian, 16.6%; Byelorussian, 3.1%; Uzbek, 2.9%; Tartar, 2.5%; Kazakh, 1.8%; Armenian, Azerbaijani, Georgian, each 1.3%; more than 100 others 10.8%).

Density per square mile: 25.3.*

Chairman of Presidium of Supreme Council: Klementi E. Voroshilov.

Premier: Nikolai A. Bulganin.

Principal cities (census 1939): Moscow 4,137,018 (capital); Leningrad, 3,191,304 (industrial center, shipbuilding); Kiev 846,293 (industrial center, Ukraine); Kharkov, 833,432 (iron and steel, coal); Baku 809,347 (oil center, Azerbaijan); Gorki 644,116 (iron and steel); Odessa (1937) 604,223 (chief Black Sea port); Tashkent 585,005 (textiles, tobacco); Tiflis (Tbilisi) 519,175 (building materials, leather); Rostov on Don, 510,253 (grain, shipbuilding).

Monetary unit: Rouble.

Languages: See Population.

Religions: Russian Orthodox (predominant), Mohammedan, Roman Catholic, Jewish, Lutheran.

* Including acquisitions since 1939; population estimated by the U.N.

STORY. The history of Russia begins th the perhaps legendary figure of the king Rurik, who according to tradition me to Russia in A.D. 862 and founded the st Russian dynasty in Novgorod. The rious tribes were united by the spread Christianity in the 10th and 11th cen-ries; Vladimir "the Saint" was converted 988. During the 11th century the grand kes of Kiev held such centralizing power existed. In 1240 Kiev was destroyed by e Mongols, and the Russian territory was lit into numerous smaller dukedoms, out which three large centers emerged—licia, Moscow and Novgorod. The early kes of Moscow extended their domin-ns through their office of tribute collec-r for the Mongols.

In the late 15th century, Ivan III, the gning duke, acquired the rival king-ms of Novgorod and Tver and threw off e Mongol yoke. Ivan IV, the Terrible 533–84), first Muscovite duke to assume e title of Tsar, is considered to have unded the Russian State. He crushed the wer of rival princes and boyars (great nd-owners), but Russia remained largely edieval until the reign of Peter the Great 682–1725), grandson of the first Roma-v Tsar, Michael (1613–45). Peter made tensive reforms aimed at Westernization, d through his defeat of Charles XII of veden at the Battle of Poltava (1709), extended Russia's boundaries to the st. Catherine the Great (1762–96) con-nued Peter's Westernization program and so expanded Russian territory, acquiring e Crimea and part of Poland. During e reign of Alexander I (1801–25), Na-oleon's attempt to subdue Russia was feated (1812–13), and new territory was ined, including Finland (1809) and Bes-rabia (1812). Alexander was the origi-ator of the Holy Alliance which crushed r a time Europe's rising liberal move-ent. During the century between the apoleonic Wars and World War I, a few forms were introduced; however, the utocratic power of the Tsars remained nchanged.

During the reign of Alexander II 855–81), Russia's borders were pushed to ie Pacific and into central Asia. Serfdom as abolished in 1861, but heavy restric-ons were imposed on the emancipated ass. Revolutionary strikes following Rus-a's defeat in the war with Japan forced icholas II (1894–1917) to grant a repre-ntative national body (Duma), elected narrowly limited suffrage. It met for ie first time in 1906. Nicholas continued his reactionary course, however, and the erwhelmingly liberal Duma had little or influence in the running of the govern-ent.

World War I demonstrated the corrupt-ss and inefficiency of the tsarist regime, though the call of patriotism held the poorly equipped army together for a time. Disorders broke out in Petrograd (now Leningrad) in March 1917, and, following the winning over of the Petrograd garri-son, the revolution was in full swing. Nicholas was forced to abdicate under pressure from the Duma and was later killed by the revolutionists. A provisional government was formed, composed of both conservative and radical elements. This government, under the successive premier-ships of Prince Lvov and Alexander Keren-sky, a Menshevik or moderate socialist, soon lost ground to the radical or Bolshe-vik wing of the Socialist Democratic Labor party. Finally, on Nov. 7, 1917, came the Second Revolution, engineered by Nikolai Lenin and Leon Trotsky and their small but well-disciplined Bolshevik following in the Petrograd Soviet. The government was turned over the next day to the Congress of Soviets (councils of soldiers, peasants and workers), which vested the govern-ment in a Council of People's Commissars with Lenin as Premier and Trotsky as For-eign Minister. The humiliating Treaty of Brest-Litovsk (March 3, 1918) concluded the war with Germany, but civil war and intervention by foreign powers prevented the new Communist government from gaining control of all Russia until 1920. A brief war with Poland occurred in 1920, but it resulted in Russian defeat and withdrawal.

On July 6, 1923, the vast territory under Soviet rule—previously an inchoate mass whose constituent parts were changing constantly—became the Union of Soviet Socialist Republics, which was formed by the union of the Russian S.F.S.R. and the Ukrainian, Byelorussian and Transcauca-sian S.S.R.'s.

The sudden death of Lenin (Jan. 21, 1924) precipitated an intraparty struggle between the group led by Joseph Stalin, General Secretary of the party, and the op-position, led by Trotsky, which favored not only swifter socialization at home but fo-mentation of revolution abroad. In 1927, Trotsky and other opposition leaders were expelled from the party and exiled. The first Five-Year Plan (1928–32) called for gradual, progressive increase in industrial and agricultural production. Its collectivi-zation program was opposed by the Ku-laks, or wealthier peasants, who were vig-orously suppressed. Purges carried out in 1936–38 removed many prominent leaders of the Revolution and top Russian army officers.

Soviet foreign policy—first featured by friendship with Germany and antagonism toward England and France and then, after Hitler's rise to power in 1933, by par-ticipation in the League of Nations and an anti-Fascist program—took another abrupt turn on Aug. 24, 1939, with the signing of

a Soviet-German nonaggression pact. Territory seized from Poland (Sept. 1939) became part of the Ukrainian and Byelorussian S.S.R.'s; that secured from Finland at the conclusion of the Finnish war of 1939–40, part of the Karelian S.S.R. set up March 31, 1940; that secured from Rumania (Bessarabia and northern Bukovina), part of the Moldavian S.S.R. set up Aug. 2, 1940; and finally the formerly independent states of Estonia, Latvia and Lithuania, occupied in June 1940, were absorbed into the U.S.S.R. as the 14th, 15th and 16th Soviet Republics. The latter annexations have not been recognized by the United States, Britain, or the majority of other nations.

Immediately following the German attack (June 22, 1941), all necessary powers for the defense of the state were vested in the State Defense Council headed by Stalin, who had taken over the post of Premier on May 6. The Germans quickly seized approximately 500,000 square miles of Soviet territory, but Soviet forces resisted stubbornly, aided by increasing amounts of matériel from the U. S. and Britain. The great Soviet counteroffensive in the Stalingrad area (Nov. 1942–Feb. 1943) marked the turning point. Soviet troops gradually pushed the Nazis back and unleashed their final great offensive on Jan. 12, 1945. The nonaggression pact with Japan (1941) was denounced in April 1945, and, following the declaration of war on Japan (Aug. 8, 1945), Soviet Far Eastern forces quickly occupied Manchuria, Karafuto and the Kuriles.

After the war, with its eastern European satellites drawn together into a solid bloc in opposition to the western democracies, the Soviet Union launched a full-scale political offensive against the non-Communist world, particularly the United States and Great Britain.

Efforts to discredit Anglo–U. S. influence were initially a failure. The western powers countered the Soviet blockade of Berlin with a highly effective "airlift," completed the unification of western Germany and went on to unite western Europe into a wall of opposition to Communist aggression through the vehicle of the North Atlantic Pact.

Evidence of an atomic explosion in the Soviet Union in the summer of 1949 was reported by President Truman on Sept. 23, 1949.

Stalin died on Mar. 6, 1953. The next day Georgi M. Malenkov succeeded him as Premier. Malenkov's chief rivals for power—L. P. Beria, V. M. Molotov, N. A. Bulganin and L. M. Kaganovich—were named First Deputy Premiers. The first evidence of the expected intraparty struggle for power was revealed by the announcement on July 10, 1953, of the purging of Beria. He was executed on Dec. 23, 1953. His demise was accompanied by a rise in importance of N. S. Khrushchev, First Secretary of the Communist party. On Feb. 8, 1955, Malenkov was demoted and replaced as Premier by Bulganin, who was formerly Defense Minister.

GOVERNMENT. Under the Constitution of 1936, the Soviet Union is "a Socialist State of Workers and Peasants" whose highest organ is the Supreme Council of the Union, which exercises legislative authority. It consists of two co-equal Houses—the Council of Nationalities, in which each constituent republic has 25 representatives, each autonomous republic 11, each autonomous oblast five, and each national okrug one (total 639); and the Council of the Union, elected on a nationwide basis with one representative for each 300,000 of population (total membership 708). All representatives are elected for four-year terms; the last election was held on Mar. 14, 1954. Elections amount to a blanket endorsement (or rejection) of a single list of candidates already nominated by the Communist party, youth organizations, collective farms and trade unions. The only election in the Western sense of the word takes place in the selection of the nominees by these groups. All citizens over the age of 18 are enfranchised.

The Presidium of the Supreme Council acts as a directive body between the sessions of the Supreme Council. It has a Chairman (sometimes referred to as the Soviet President), 16 Vice Chairmen (one for each constituent republic), a Secretary and 15 members, all elected by the Supreme Council.

The highest executive and administrative power is exercised by the Council of Ministers (formerly People's Commissars) appointed by the Supreme Council and headed by a Chairman (Premier) and the Vice Chairmen. It issues decrees and executive orders on the basis of laws in operation and supervises their execution. The administrative machinery is necessarily vast and complicated, since it is responsible not only for the ordinary administrative functions of government, but also for the operation of enterprises which are state-owned.

The 16 constituent republics of the Union are as follows: the Russian Soviet Federated Socialist Republic (capital Moscow) covering about 80 per cent of the total area; the Ukrainian S.S.R. (Kiev); Byelorussian S.S.R. (Minsk); Armenian S.S.R. (Erivan); Azerbaijan S.S.R. (Baku); Georgian S.S.R. (Tiflis); Turkmen S.S.R. (Ashkhabad); Uzbek S.S.R. (Tashkent); Tadzhik S.S.R. (Stalinabad); Kazak S.S.R. (Alma Ata); Kirghiz S.S.R. (Frunze); Karelo-Finnish S.S.R. (Petrozavodsk); Moldavian S.S.R. (Kishinev)

uanian S.S.R. (Vilnius); Estonian R. (Tallinn) and Latvian S.S.R. (Riga). ostwar territorial acquisitions include Carpatho-Ukraine (12,617 sq. mi.) ob- ed from Czechoslovakia June 29, 1945, rporated into the Ukrainian S.S.R. as arpatskaya Oblast; the Republic of nu Tuva in central Asia (64,000 sq. incorporated early in 1945 into the F.S.R. as the Tuvinian Autonomous ast; Karafuto or southern Sakhalin 935 sq. mi.) and the Kurile Islands 44 sq. mi.), occupied by Soviet troops Aug., 1945, and incorporated into the barovsk Krai of the R.S.F.S.R.; the hern part of eastern Prussia (about) sq. mi.), placed under *de facto* So- administration at the Potsdam Con- nce and incorporated into R.S.F.S.R. Kaliningrad (formerly Königsberg) ug; the Petsamo district of Finland, ined *de jure* under the 1947 treaty and rporated into the Murmansk Oblast he R.S.F.S.R.; and Poland east of the zon Line (69,860 sq. mi.), under terms he Soviet-Polish treaty of Aug. 16, 1945, rporated into the Ukrainian and Bye- ssian S.S.R.'s.

MMUNIST PARTY. The only political y permitted to exist in the Soviet Un- is the All-Union Communist party, ch claimed 6,882,145 members in Oct. . Its organization parallels the entire rnmental and economic structure of country and guides all important ac- through instructions from the central ns to party members who occupy most he important political and economic tions. Its highest organ is the All-Un- Party Congress, which meets irregu- y. The Congress elects a Central Com- tee (125 members, 110 alternates), ch in turn elects (1) an executive body sidium), (2) a Secretariat headed by irst Secretary (N. S. Khrushchev) and a Committee of Party Control.

embers of the Presidium of the Central mittee in July 1955 were N. S. Khrush- v, N. A. Bulganin, K. E. Voroshilov, V. Molotov, L. M. Kaganovich, M. G. ukhin, M. A. Saburov, A. I. Mikoyan, M. Malenkov, A. I. Kirichenico, M. A. lov.

n Sept. 1947, the Cominform (Com- nist Information Bureau), a Soviet- inated organization composed of rep- ntatives from nine national Commu- parties, was created to replace the nintern (dissolved in 1943) as an in- ment in the promotion of world-wide mmunism.

FENSE. The land, air and sea forces under control of the Defense Ministry. itary service is compulsory; the ial training period varies from 2 to 5 rs. The armed forces, which were esti- ed to have reached a peak of more than 15,000,000 in 1945, numbered approximately 4,800,000 men in 1954. The strength of the army, including MVD and MGN troops (secret police organizations with paramilitary formations), was about 3,300,000, organized in more than 200 line divisions, not all of which were at full strength (10,000), with supporting troops. The air force had about 750,000 men and 23,000 planes; the navy, about 750,000 men. More than 500,000 troops were stationed outside Soviet borders, including 30 divisions in eastern Germany. At least 700,000 men were estimated to be located in Siberia and the Soviet Far East.

Information about the Red fleet is as vague as that about the army and air force. In Dec., 1954, it was believed to have 8 battleships, 26 cruisers, 1 coast defense ship, 138 destroyers, 177 frigates and escort vessels, 400 submarines, and many coastal and river craft, patrol vessels, minesweepers and various other small ancillary craft. An extensive naval-construction program was made part of the fourth Five-Year Plan.

SOCIAL AND ECONOMIC CONDITIONS. *Education.* The school system throughout the country is based upon uniform text books and the same syllabus, although a number of hours are allowed for native language, literature and history in the non-Russian schools. All schools are state controlled, and compulsory education begins at the age of seven. Coeducation is being abolished and separate schools established for boys and girls. The boys' curriculum stresses military training; the girls', housework. Enrollment in primary and secondary schools in 1953 was 37,900,000. Under the Defense Ministry are the Suvorov military schools, established for the training of future officers. In 1953, 887 colleges and institutions of higher learning had 1,400,000 students. Literacy in Russia was estimated at over 90% in 1950.

Agriculture. Formerly an agricultural country, the Soviet Union has grown since about 1920 into an industrial-agricultural power, with agriculture making great advances at the same time. The total area under cultivation was 259,500,000 acres in 1913, 291,600,000 acres in 1929, and 391,000,000 acres in 1950. Grain production figures for the U.S.S.R. have not been released since 1949–50.

The Union's diverse climate permits the growing of the most varied crops, ranging from the temperate to the subtropical. Under the fourth Five-Year Plan, grain production increased to 124,700,000 metric tons in 1950 (a 5% increase over the prewar average), sugar beets to 24,300,000 (14% increase), and raw cotton to 3,750,000 (60% increase). Further increases were projected under the fifth Five-Year

PRODUCTION OF GRAIN CROPS

(in millions of bushels)

Grain	1935–39 average	1949	1950
Wheat	1,124	1,100	1,100
Rye	885	950	...
Barley	425	310	325
Maize	170	140	...
Oats	1,165	775	750

ANIMAL INDUSTRY (millions of head)

Animal	1933	1947	1953
Horses	16.6	11.9	15.3
Cattle	38.4	52.0	56.6
Sheep and goats	50.2	84.7	109.9
Pigs	12.1	13.4	28.5

Plan (1951–55), details of which were revealed in Aug. 1952. Grain production was to be increased to 186,700,000 metric tons in 1955; sugar beets, to 40,000,000 tons; potatoes, to 147,800,000 tons; cotton, to 6,300,000 tons.

Industry. Almost all industry in the Soviet Union is carried on by organizations owned or controlled by the state. About 80 per cent of the total state industries is controlled by 291 large trusts. The industrialization of the country has been a major objective of its leaders. Completion of the first two Five-Year Plans (1928–32, 1933–37) and of most of the third (1937–42) saw a great increase in the volume and versatility of Soviet industry.

The large-scale evacuation of plants to the East and the construction of new plants there during World War II, coupled with the eastward orientation of industry prior to the war, has shifted the balance to newly developed regions in Central Asia and Siberia from the Moscow-Leningrad area and the Ukraine. The new regions are now the center of Soviet industrial power, accounting for almost all magnesium and aluminum production, and more than 60 per cent of the pig iron and steel production. The production of consumers' goods continues to be subordinate to the production of heavy capital equipment.

Large increases in production were reported under the fourth Five-Year Plan, which ended in 1950. Pig-iron production in 1952 was about 25,000,000 metric tons; steel production, 34,400,000 tons (about 41,000,000 tons in 1954).

The fifth Five-Year Plan projected substantial increases by 1955 over 1950 levels, including pig iron 76%, steel 62%, rolled metal 64%, metallurgical equipment 85%, synthetic rubber 82%, tractors 19%, cotton textiles 61% and woolen textiles 54%. In order to achieve the further development of industrial production, state capital investment in industry was to be doubled as compared with 1946–50.

According to official reports, industrial production in 1954 was 63% above that of 1950, and the plan was fulfilled in May 1955, 8 months ahead of schedule.

Foreign Trade. Soviet foreign trade is a state monopoly, and foreign goods are purchased in accordance with an over-all plan conducted under the supervision of the Foreign Trade Ministry. Connected with the Ministry are a number of export-import and transport combines.

No official trade statistics have been issued since 1938. Exports were unofficially placed at $1,141,000,000 in 1950; imports, $1,049,000,000. Chief customers were European satellites of the U.S.S.R. 71.3%; Germany 8.3%; Britain 7.5%; and the U. S. 3.5%; leading suppliers, European satellites 60.6% and Germany 14.5%. Main exports are grain, timber, ore, non-ferrous metals, raw cotton and industrial equipment; main imports, heavy engineering equipment, electrical equipment and precision instruments, ships, rubber, tin and wool.

Communications. According to *Lloyd's Register of Shipping*, the merchant marine on June 30, 1954, had 1,113 ships (100 tons and over) aggregating 2,380,753 tons. Merchant ship construction was subordinate to naval construction under the fifth Five-Year Plan. The principal ports include Leningrad on the Gulf of Finland, Murmansk and Archangel on the Arctic Ocean and White Sea, respectively; Vladivostok on the Sea of Japan; and the Black Sea ports of Odessa, Sevastopol, Novorossisk and Batum. River and canal transport are extremely important. In 1950 there were about 75,000 miles of navigable rivers and canals.

Railway mileage was estimated in 1953 at 72,000, of which about a third was double tracked. Highway mileage (1945) totaled 849,520, but only 7,146 mi. (less than that of Vermont) were reported as all-weather roads in 1949. The fifth Five-Year Plan called for a 150% increase in the mileage of new railway lines and a 60% increase in doubletracking. New construction in Siberia and reconstruction in the Baltic republics was to be emphasized.

Air traffic is assuming great importance, especially in the central Asiatic portion of the U.S.S.R. Prior to World War II, the network of air routes covered 69,845 mi. and in 1950 the estimated length was 109,000 miles, over which some 2,000,000 passengers were carried (300,000 in 1938). Moscow is connected with the capitals of all the Union republics by daily air service, and there are regular services to the Far East and Europe.

nance. Recent financial data are as llows, in billions of roubles (budget timates):

	1953	1954	1955
evenue	543.3	572.5	590.2
penditure	530.5	562.8	563.5

The budget includes charges for the nancing of industry, transportation, agriilture and commerce—items which ordirily are handled through private chanls in other countries.

ATURAL FEATURES AND RESOURCES; LIMATE. The U.S.S.R. is the largest nbroken political unit in the world, ocpying more than one-seventh of the nd surface of the globe. The greater part its territory is a vast plain stretching om eastern Europe to the Pacific Ocean. nis plain, relieved only occasionally by w mountain ranges (notably the Urals), nsists of three zones running east and est: (1) the frozen marshy tundra of the rctic; (2) the more temperate forest belt; nd (3) the steppes or prairies to the uth, which in southern Soviet Asia beme sandy deserts. The topography is ore varied in the South, particularly in ie Caucasus between the Caspian and lack Seas, and in the Tien-Pamir mountin system bordering Afghanistan, Sinang and Mongolia. Mountains (Stanovoi nd Kolyma) and great rivers (Amur, enisei, Lena) also break up the sweep of ie plain in Siberia.

inerals. The U.S.S.R. is probably the chest country in the world in mineral sources, containing deposits of almost very known mineral. It ranks among the op producing nations in coal, chromite, on ore, petroleum, gold, copper, mangaese and other products. The richest ineral region is that of the Ural Mountins, which lacks only good coking coal. otal coal and lignite production in 1953 as estimated at 320,000,000 metric tons; on ore (1953), perhaps 55,000,000 tons. ther production estimates included aluinum (1954) 575,000 metric tons; copper 1954) 351,200 short tons; refined lead 1954) 270,000 metric tons; platinum 1953) 100,000 oz.; tin (1949) 9,000 metric ons; zinc (1954, smelter) 200,000 metric ons; gold (1953) 9,000,000 oz. Petroleum roduction was estimated at 375,000,000 arrels in 1953. Uranium deposits are beeved to exist in the Soviet Union.

orests. With a forested area of about 500,000,000 acres, the U.S.S.R. possesses large proportion of the world's timber eserves. Most of the forested area is in lberia, but there are also valuable stands t the Caucasus. Plans were made late in 948 for the planting of huge forest belts) to 90 mi. wide in the southern steppes o protect fertile food-producing areas rom the dry winds of the central Asian nd Caspian deserts.

Fisheries and Furs. The rivers, lakes and surrounding seas (except the Black Sea) are rich in fish; the catch averages more than 1,500,000 tons annually. The acquisition of former Japanese fisheries in Karafuto and the Kuriles greatly increased output of the Far Eastern fish industry. Trapping is an important secondary industry, especially in eastern Siberia.

Climate. The climate necessarily is varied, but for the most part is continental. In general the climate of the northern and central regions is characterized by long, cold winters and by summers which are shorter and cooler than those in the northern part of the United States. Siberia has the coldest winters in the world; the January average at Verkhoyansk is −59°. In the southern regions the climate varies between temperate and subtropical. The Uzbek, Turkmen and Kazakh S.S.R.'s are largely desert and semi-desert areas. In the central belt rainfall is fairly uniform, averaging about 15 inches east of the Urals and 20 inches to the west. In the tundra to the north it drops to about 8 inches and to 4 inches in the southern regions.

Average daily low temperature at Moscow is about 5° (high, 14°) in January, which is the coldest month; average daily high is 71° during July, which is the warmest month.

Uruguay (Republic)

(República Oriental del Uruguay)

Area: 72,172 square miles.
Population (est. 1953): 2,525,000 (predominantly of European extraction).
Density per square mile: 34.9.
President of Federal Council: Luis Batlle Berres.
Principal cities (est. 1948): Montevideo, 850,000 (capital); Paysandú, 50,000 (meat packing); Salto, 48,000 (cattle raising); Mercedes, 33,000 (farming center).
Monetary unit: Peso.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Juan Diaz de Solís, a Spaniard, discovered Uruguay in 1516, but the Portuguese were first to settle it when they founded Colonia in 1680. After a long struggle, Spain wrested the country from Portugal in 1778. Uruguay revolted against Spain in 1811, only to be conquered in 1816–20 by the Portuguese from Brazil. Independence was reasserted with Argentine help in 1825, and the republic was set up in 1830. There followed a long period of factional strife between two groups still in existence at the present time—the Blancos and the Colorados. Andrés Martínez Trueba became President of the Federal Council effective Mar. 3, 1952. He was

succeeded Mar. 1, 1955, by Luis Batlle Berres, also of the Colorado faction.

GOVERNMENT AND DEFENSE. Under the 1934 Constitution, as amended in 1951, the executive power is exercised by a Federal Council of 9 members, 6 of the majority and 3 of the minority party, normally popularly elected for 4-year terms. There is a bicameral Congress composed of a 99-member Chamber of Deputies and a 31-member Senate elected for 4 years. All literate citizens of Uruguay may vote, including women, who may also sit in congress.

Service in the army (1950 strength: 26,000) is voluntary, but national guard service is compulsory in wartime. There is a police force of about 5,500, and a small air force. The navy has 2 frigates, 4 patrol vessels and several smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. Uruguay's illiteracy rate is 35 per cent; primary education is compulsory, and all education is free. There was in 1950 a total of 212,509 pupils in 1,722 public schools and 11,948 students in the university at Montevideo. Uruguay's high percentage of white population includes many foreign-born, mostly Italian and Spanish, but there are some Brazilian, Argentine and French.

Cattle, sheep, meat and wool dominate the Uruguayan economy. With nearly 80 per cent of its grassy land devoted to grazing, there were in 1953, 26,000,000 sheep and about 8,000,000 cattle. Wool production in 1954 was 99,200 short tons, greasy. With only about 5 per cent of the land cultivated, a third of this grows wheat, the chief crop (1953–54: 707,076 metric tons). Other crops are corn, flax for linseed, oats, potatoes, beans, fruits, tobacco, alfalfa and grapes. Wine production in 1954 was about 19,000,000 U. S. gallons.

Uruguay slaughters more than two million head of cattle and sheep a year, and meat processing is the largest manufacturing industry. There are many modern plants for chilling or freezing meat, and plants for liquid extract of beef.

During World War II Uruguay doubled its foreign trade, and most of the increase went to the U. S. Recent data are as follows (in millions of U. S. dollars):

	1952	1953	1954
Exports	208.9	269.5	249.0
Imports	236.6	193.4	272.1

In value, wool was the chief export (47%) in 1953, followed by beef and mutton (16%) and manufactures (15%). Chief customers were Britain (31%), the U. S. (18%) and Germany (7%). The U. S. (18%) and Britain (13%) were the principal suppliers. Leading imports included machinery, vehicles, gasoline, textiles and sugar.

Railway mileage in 1949 totaled 1,87[illegible]. Prior to 1948, 90 per cent was British-owned, but in that year the government purchased complete interest. Road mileage was 26,000 in 1948, of which 3,051 mi. were paved. On June 30, 1954, the merchant marine had 49 vessels (100 tons and over) of 69,616 gross tons.

The 1954 budget provided for expenditure of 463,000,000 pesos. The funded public debt on Dec. 31, 1954, was 1,200,000,000 pesos.

NATURAL FEATURES; CLIMATE. Uruguay a low rolling plain in the south and a low plateau in the north, has a 120-mile Atlantic shore line, a 235-mile frontage on the Río de la Plata, and 270 miles on the Uruguay River, its western boundary. The climate is good. Average summer temperature in January and February is 71°, and average winter temperature in July is 50°. Frost is almost unknown. Average rainfall is 35 inches, heaviest in the autumn.

Vatican City State

(Stato Città Vaticana)

Area: 108.7 acres.
Population (est. 1952): 947 (Italian 85%; Swiss and others, 15%).
Ruler: The Supreme Pontiff, Pius XII.
Monetary unit: Lira.
Languages: Latin, Italian.
Religion: Roman Catholic.

The Vatican City State, sovereign and independent, is situated on the Vatican hill on the right bank of the Tiber in northwest Rome. The area has been intimately associated with the history of the Roman Catholic Church since the time of the martyrdom of St. Peter. From it the Pope exercised temporal sway for many centuries over a large part of central Italy; in 1859 the Papal States comprised an area of some 17,000 square miles. During the struggle for Italian unification, from 186[illegible] to 1870, most of this area became part of Italy.

By an Italian law of May 13, 1871, the temporal power of the Pope was abrogated, and the territory of the Papacy was confined to the Vatican and Lateran palaces and the Villa of Castel Gandolfo. The Popes consistently refused to recognize this arrangement, and by the Lateran Treaty of Feb. 11, 1929, between the Vatican and the Kingdom of Italy, the exclusive dominion and sovereign jurisdiction of the Holy See over the city of the Vatican was again recognized, thus restoring the Pope's temporal authority over the area. Accompanying the treaty were conventions regulating the position of the Catholic Church in Italy and providing for reimbursement to the Vatican in final se[illegible]

lement of the claims of the Holy See against Italy for the loss of temporal power in 1870–71.

The Supreme Pontiff is Pius XII (Eugenio Pacelli), born at Rome, March 2, 1876, proclaimed cardinal in 1929, and elected Pope on March 2, 1939. He was crowned on March 12.

The Pope has full legal, executive and judicial powers. Executive power over the area is in the hands of a Governor appointed by the Pope and exclusively responsible to him.

The College of Cardinals is the Pope's chief advisory body, and upon his death the cardinals elect his successor for life. The cardinals themselves are created for life by the Pope. When complete, the College consists of 70 members.

The central administration of the Roman Catholic Church throughout the world is carried on in the Vatican by 12 congregations, 3 tribunals and 5 offices.

In its diplomatic relations with foreign countries, the Vatican is represented by the Papal Secretary of State. In 1954 the Vatican maintained diplomatic relations with 42 states through its papal-nuncios (ambassadors) and inter-nuncios (ministers). Apostolic Delegates, representatives without accredited rank, are maintained in a number of other countries throughout the world.

The Vatican has its own railway station, postal facilities, coinage, newspaper, radio and television system. In addition to the Vatican itself, which includes St. Peter's Square, extraterritorial rights are enjoyed in 13 buildings in the city of Rome outside Vatican City.

Venezuela (Republic)

(Estados Unidos de Venezuela)

Area: 352,143 square miles.
Population (est. Dec. 1954): 5,858,000* (mestizo, 65%; white, 20%; Negro, 8%; Indian, 7%).
Density per square mile: 16.6.*
President: Marcos Pérez Jiménez.
Principal cities (census 1950): Caracas, 490,064 (capital); Maracaibo, 235,750 (oil); Barquisimeto, 105,108 (sugar, coffee, mining); Valencia, 88,701 (farming center).
Monetary unit: Bolívar.
Language: Spanish.
Religion: Roman Catholic.

* Excludes tribal Indians.

HISTORY. Venezuela, a third larger than Texas, has a stormy political past and the distinction of being the world's second greatest producer of oil, outranked only by the U. S. Simón Bolívar, who led the liberation of much of the continent from Spain, was born in Caracas.

Columbus discovered Venezuela on his third voyage in 1498. A subsequent Spanish explorer, for reasons of his own, gave the country its name, meaning "Little Venice." There were no important settlements until Caracas was founded in 1567. With Bolívar taking part, Venezuela was one of the first South American colonies to revolt against Spain in 1810, but it was not until 1821 that independence was won. Federated at first with Colombia and Ecuador, the country set up a republic in 1830, and then sank for many decades into a condition of revolt, dictatorship and corruption. From 1908 to 1935, when he died, General Juan Vicente Gómez ruled tyrannically over the nation, picking various satellites to alternate with him in the presidential palace.

Dr. Rómulo Betancourt and his party, the liberal Acción Democrática, won 137 out of 160 seats in an election held Oct. 27, 1946, for a constituent assembly to draft a new Constitution. The well-known writer, Rómulo Gallegos, easily won the presidential election of Dec. 14, 1947, as the candidate of Acción Democrática.

On Nov. 24, 1948, the Venezuelan army ousted Gallegos and established a military junta which was reconstituted on Nov. 27, 1950. Following elections for a constituent assembly on Nov. 30, 1952, the junta presented its resignation to the army, which named Col. Marcos Pérez Jiménez as provisional President on Dec. 2, 1952. His selection was confirmed by the constituent assembly.

GOVERNMENT AND DEFENSE. Venezuela is a union of 20 states, a federal district and two territories. Under the 1953 Constitution (Venezuela's 21st) the Congress consists of a 42-member Senate elected by state legislatures and a 104-member Chamber of Deputies elected directly. The President is elected by popular vote for five years.

Military service is compulsory, with a one- to three-year initial training period. The army has about 10,000 men. The navy has 2 destroyers, 4 frigates and several other smaller craft. There is a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy in 1949 was estimated at 60 per cent. Primary education between ages of 7 and 14 is compulsory. In 1952–53, 7,241 primary schools reported 570,286 pupils enrolled; secondary and special schools numbered 191 with 31,344 students in March 1954. There are five universities—Los Andes at Mérida, Central University at Caracas, Zulia at Maracaibo, and two Catholic universities at Caracas.

Agriculture engages the majority of the population, but production has failed to keep pace with the food needs of the rap-

idly increasing population. The principal crop is coffee, grown on 60,000 plantations on the slopes of the coastal mountains. Annual production averages 800,000 bags of 60 kilograms each. Exports of cacao in 1954 were 17,145 metric tons. Other important crops are sugar, tobacco, cotton, corn, wheat and tropical fruits. Stockraising, which is centered east of Lake Maracaibo, and on the llanos, is important. In 1950 there were 5,359,654 cattle and 1,292,808 hogs.

There are few industries, the most important being woodworking, cotton textiles and tobacco products. Electric power is plentiful, and a law of 1943 prepared the way for the beginning of an oil refining industry. In 1954, 161,853,000 bbl. of crude oil were refined and 2,995,130,000 cigarettes and 1,213,021 metric tons of cement were produced.

Oil, most of which is found on the northwest shore of Lake Maracaibo, is by far the dominant factor in the economy. It accounts for 95 per cent of exports, gives the country a big foreign trade balance and a treasury surplus. Recent foreign trade statistics, in millions of bolivares, are as follows:

	1952	1953	1954*
Exports	4,858.4	4,841.7	5,661.0
Imports	2,542.3	2,748.9	2,745.8

* Provisional.

In 1954 the U. S. supplied 62% of the imports, Britain, 8%. Leading imports were machinery and equipment, metals and manufactures, foodstuffs, beverages and textiles. In addition to petroleum (94%), the chief exports were iron ore, coffee and cacao. Most of the oil goes to the U. S. via the islands of Curaçao and Aruba, refining centers in the West Indies.

Highways include 3,829 miles for all-weather use, and 1,600 miles of unimproved road. Railway mileage is approximately 760. It consists largely of unconnected short lines.

The 1955–56 budget was balanced initially at 2,550,000,000 bolivares. There is no foreign debt.

NATURAL FEATURES AND RESOURCES; CLIMATE. An unusual setting of mountain systems breaks Venezuela into four distinct areas: (1) the Maracaibo lowlands; (2) the mountainous region in the north and northwest; (3) the Orinoco basin with the llanos (vast grass-covered plains) on its northern border and great forest areas in the south and southeast; (4) the Guiana highland, south of the Orinoco, accounting for nearly half the national territory. About 80 per cent of Venezuela is drained by the Orinoco and its 400 tributaries.

Oil production increased from 116,000,000 barrels in 1931 to 691,787,785 barrels in 1954 (1953: 644,210,620 barrels). In addition to oil, Venezuela has gold mines in the region southwest of the Orinoco delta. Output in 1954 was 56,070 troy oz. Of minor importance are bauxite, coal, copper, tin, asbestos and asphalt. Diamond production in 1954 was 96,983 carats. A subsidiary of Bethlehem Steel Corp. began the mining of iron ore in the El Pao area south of the Orinoco river in 1950, while a U. S. Steel Corp. subsidiary is exploiting a rich "iron mountain" south of Ciudad Bolívar on the Orinoco. Production of iron ore in 1954 totaled 5,388,638 metric tons (1953: 2,296,401 tons).

The climate is tropical and unhealthful except where modified by altitude; it approaches the mild temperate in the higher western mountains. Most rainfall occurs between April and October, and the rest of the year is dry. At La Guaira, the mean annual temperature is 81°, at Caracas, 70°, at Cumaná, 83°.

Yemen (Kingdom)

Area: c. 31,000 square miles.
Population (est. 1953): 4,500,000.
Density per square mile: c. 145.2.
King: Sayf al-Islam Ahmad ibn Yahya.
Principal cities (est.): Hodeida, 30,000 (chief port); Sana, 25,000 (capital); Taiz, 12,000 (seat of government).
Monetary unit: Maria Theresa dollar (riyal).
Language: Arabic.
Religion: Moslem.

The history of Yemen, in the southwest Arabian peninsula fronting the Red Sea, dates back to the Minaean kingdom (1,200–650 B.C.). It accepted Islam in 628 A.D. and in the 10th century came under the control of the Rassite dynasty of the Zaidi sect, which still rules. The Turks occupied the area from 1538 to 1630 and from 1849 to 1918. Its sovereign status was confirmed by treaties signed with Saudi Arabia and Britain in 1934. Yemen was admitted to United Nations membership in 1947.

Yemen is an absolute monarchy. The present ruler came to the throne in 1948, after insurgents murdered his father. Nearly all the population of the country is settled and nomadism prevails only in the lowlands.

Unlike most of Arabia, the Yemeni highlands are well adapted to agriculture; they produce grain, fruit, vegetables and Mocha coffee. Stock raising flourishes, particularly in the lowlands. Exports include coffee and hides.

The narrow coastal plain rises sharply to a maritime range and central plateau (highest point, 12,336 ft.). Winter temperatures in the highlands fall below 40° F. and summers are cool.

Yugoslavia (Republic)
(Federationa Narodna Republika Jugoslavija)

Area: 99,181 square miles.*
Population (est. 1954): 17,288,000*
1931: Serbian, 46%; Croat, 28.5%; Slovene, .5%; German, 3.6%; others [Magyar, Alanian, Rumanian, Czech], 13.4%).
Density per square mile: 174.3.
President: Josip Broz (Tito).
Principal cities (census 1953)†: Belgrade Beograd), 469,988 (capital); Zagreb, 350,-52 (Croat commercial center); Ljubljana, 38,211 (Slovenian industrial center); arajevo, 135,657 (Bosnian manufacturing enter); Skopje, 121,551 (capital, Macedo-ia); Subotica, 115,402 (wheat).
Monetary unit: Dinar.
Languages: Serbo-Croat, Slovene, Mace-lonian (all official).
Religions (est. 1952): Greek Orthodox, 9.6%; Roman Catholic, 36.8%; Moslem, 2.5%; others, 1.1%.

* Excluding Zone B of the former free territory of Trieste (202 square miles).
† Provisional returns.

HISTORY. Yugoslavia, twice the size of Pennsylvania and fronting on the Adriatic Sea opposite Italy, was formed in 1919 out of some of Europe's oldest trouble spots in the Balkans. After a brief and unstable history of 25 years, it emerged from World War II as a Russian satellite. World amazement, however, followed an attack made June 28, 1948, by the Soviet-dominated Cominform on Marshal Tito and the Yugoslav Communist party for inspiring a "hateful" policy against the Soviet Union and retreating from the Communist line in foreign and domestic policies. Unlike other officials similarly attacked by Soviet organs in the past, Tito denounced the Cominform's action and still continued in full power despite further repeated attacks on him by the Cominform and members of the Soviet east European bloc. On September 29, 1949, the Soviet Union denounced its 1945 treaty of friendship with Yugoslavia.

The 1919 components of Yugoslavia were the old kingdoms of Serbia and Montenegro, and the following: Bosnia-Herzegovina, formerly administered jointly by Austria and Hungary; Croatia-Slavonia, which had had limited autonomy under Hungary; and Slovenia and Dalmatia, formerly administered by Austria.

Alexander I, son of King Peter of Serbia, became the first King of the new country on Aug. 16, 1921. His reign was a rocky one because the Croats, under Dr. Stephen Radić, unceasingly sought autonomy. Finally, a Croat assassinated Alexander in Marseille in October 1934, and since his son Peter was a minor, a regency was set up under Prince Paul, the new King's uncle.

After pursuing an increasingly pro-Axis policy under the regent, Yugoslavia signed the Axis Pact on March 25, 1941; this caused the overthrow of the government two days later. On April 6 the country was invaded by the Nazis and was speedily occupied. While the King and government fled to the Near East and later to London, Yugoslavia was divided into German, Italian, Hungarian and Bulgarian occupation zones. Puppet regimes were established in Croatia and Serbia.

Inside Yugoslavia, the Axis occupation was fought by two guerrilla armies—the Chetniks under Draja Mikhailović, who supported the monarchy; and the Partisans under Marshal Tito (Josip Broz), who leaned toward Russia. These two groups fought not only the Germans, but also each other. In November 1943, Tito established an Executive National Committee of Liberation to act as a provisional government, thus repudiating King Peter, who was in exile.

In the elections of Nov. 11, 1945, Tito's forces won overwhelmingly, partly because the monarchist factions boycotted the balloting. Convening on Nov. 29, the new Assembly abolished the monarchy and set up the Federal People's Republic of Yugoslavia. Tito was Prime Minister, and his government won recognition from Britain and the United States.

The Tito government embarked upon an internal policy of ruthless oppression and elimination of opposition factions, including the summary trial and execution of Mikhailovic in 1946. In April 1947, it initiated a five-year plan aimed at improvement of agriculture and heavy expansion of industry.

Externally the government pursued, until 1948, its uncompromising support of Moscow, as manifested by Yugoslav aid to antigovernment Greek guerrillas, which had led to a U. N. inquiry in 1947. Soviet support enabled the nation to secure most of Italian Istria under the 1947 peace treaty, but efforts to secure sovereignty over the key port of Trieste were unsuccessful. Zone B of the former free territory of Trieste was, however, transferred to Yugoslavia in Oct. 1954.

Tito was elected President of Yugoslavia under the new Constitution on Jan. 14, 1953.

GOVERNMENT AND DEFENSE. Under the 1953 Constitution, Yugoslavia is a federal republic composed of six units—Serbia (which includes the autonomous province of Vojovdina and the autonomous region of Kosovo-Metohija), Croatia, Slovenia, Bosnia-Herzegovina, Macedonia and Montenegro. Executive power is vested in the Federal Executive Council of 30 to 45 members elected by and from the Federal Assembly, and presided over by the President of the republic, who is elected by and is

responsible to the Federal Assembly. The Assembly consists of (1) a Federal Council of 352 members, most of whom are popularly elected and (2) a Council of Producers, elected by organized producing citizens in agriculture, industry and the crafts. Actual administration is carried on by 5 State Secretaries responsible to the Executive Council. Actual control of the country remains with the Yugoslav Communist party, which had 779,382 members on June 30, 1952.

The army, based upon the National Liberation Army and partisan detachments which at one time had a strength of about 800,000, was unofficially estimated to number approximately 600,000 in 1954, including police forces. Equipment generally is poor. The air force had about 600 planes in 1950. The navy was believed to include 2 submarines and 4 escort vessels in Dec. 1954. It received several small ships from the Italian fleet in 1948.

SOCIAL AND ECONOMIC CONDITIONS. Education on the elementary level is compulsory and free. Illiteracy was 24.8% in 1948. In 1952–53 there were 13,756 elementary schools with 1,396,927 pupils, 1,884 secondary schools with 514,887 pupils and 1,016 technical schools with 144,320 students. The various universities and technical colleges had a total enrollment of 56,935 students in 1952.

Agriculture occupies about 80 per cent of the population. The principal crops are corn, wheat, sugar beets, hemp, hops, opium (in Macedonia) and tobacco (chiefly in Macedonia and Herzegovina). Crop figures in 1954 were as follows, in metric tons: wheat, 1,374,000; maize, 3,000,000; sugar beets, 1,249,000; tobacco, 29,200; potatoes, 1,828,000; flax, 13,600. Excellent wines are produced in Dalmatia and Herzegovina and along the Danube (production in 1954 was 71,940,000 U. S. gallons).

In 1954 there were 5,097,000 cattle, 12,116,000 sheep and 4,310,000 hogs. Wool production in 1953 was 10,000 metric tons, clean basis.

Manufactures are limited for the most part to consumers' goods. Legislation passed Dec. 5, 1946, nationalized all private economic enterprises, public works and industries in 42 branches of the national economy including mining, metallurgy, and all industries which process natural products.

Yugoslavia has only limited access to ports on the Adriatic because of the difficulty in crossing the coastal range with railways and highways. Waterways, especially the Danube, are important. The merchant marine in 1954 totaled 151 vessels (of over 100 tons) with a gross tonnage of 268,672. Railway mileage in 1953 was 7,327 and highway mileage in 1952 was 51,650.

Recent trade data are as follows (in billions of dinars):

	1952	1953	1954
Exports	73.96	55.79	72.11
Imports*	111.92	118.59	101.82

* Including imports in aid.

Chief exports in 1954 were sawn timber (14%), refined lead (16%) and copper (3%). Leading customers were western Germany (19%), Italy (12%) and Turkey (10%); leading suppliers, the U. S. (28%), western Germany (17%) and Britain (7%). Imports in aid totaled 27,075,514,000 dinars in 1954.

The 1955 budget balanced revenue and expenditure at about 232,000,000,000 dinars.

NATURAL FEATURES AND RESOURCES; CLIMATE. About half of Yugoslavia is mountainous. In the north, the Dinaric Alps rise abruptly from the sea and progress eastward as a barren limestone plateau called the Karst. Montenegro is a jumbled mass of mountains, containing also some grassy slopes and fertile river valleys. Southern Serbia, too, is mountainous. A rich plain in the north and northeast, drained by the Danube, is the most fertile area of the country. The Danube and tributaries—the Drava, Sava and Morava—in the northeast are the principal rivers.

Yugoslavia is the Balkans' principal mineral producer. Production in 1954 was as follows, in metric tons: coal, 8,088,000; lignite, 5,575,000; blister copper, 80,300; iron ore, 1,110,700; chromite, 127,000; bauxite, 686,700; manganese ore, 9,200; refined lead, 66,700; raw zinc, 14,000; silver 283,000 oz. Uranium deposits have been reported.

On the Adriatic, Yugoslavia's climate is mild and Mediterranean, but in the interior the winters are cold and the summers hot. January temperatures in Belgrade average about 30°, and summer temperatures are usually in the 70°s. Rainfall is heaviest throughout the country from October to January.

A record of later events may be found in the section: NEWS RECORD of 1955.

Explorations and Discoveries

Africa

Country or place	Event	Explorer or discoverer	Date
Sierra Leone	Visited	Hanno, Carthaginian seaman	c. 520 B.C.
Congo River	Mouth discovered	Cão, Portuguese navigator	c. A.D. 1484
Cape of Good Hope	Doubled	Bartholomeu Diaz, Portuguese navigator	1488
Gambia River	Explored	Mungo Park, Scottish explorer	1795
Sahara Desert	Crossed	Denham and Clapperton, English explorers	1822–23
Zambezi River	Discovered	Livingstone, Scottish explorer	1851
Sudan	Explored	Barth, German explorer	1852–55
Victoria Falls	Discovered	Livingstone	1855
Lake Tanganyika	Discovered	Burton and Speke, British explorers	1858
Congo River	Traced	Stanley, British explorer	1877

Asia

Punjab (India)	Visited	Alexander the Great	327 B.C.
China	Visited	Marco Polo, Italian traveler	c. A.D. 1272
Tibet	Visited	Odoric, Italian monk	c. 1325
Southern China	Explored	Conti, Italian adventurer	c. 1440
India	Visited by Cape route	Vasco da Gama, Portuguese navigator	1498
Japan	Visited	St. Francis Xavier of Spain	1549
Arabia	Explored	Niebuhr, German explorer	1762
China	Explored	Richthofen, German scientist	1868
Mongolia	Explored	Przhevalsky, Russian explorer	1870–73
Central Asia	Explored	Hedin, Swedish scientist	1890–1908

Europe

Shetland Islands	Visited	Pytheas of Massilia (Marseille)	c. 325 B.C.
North Cape	Rounded	Ottar, Norwegian explorer	c. A.D. 870
Iceland	Colonized	Norwegian noblemen	c. 890–900

North America

Greenland	Colonized	Eric the Red, Norwegian navigator	c. A.D. 985
Labrador; Nova Scotia (?)	Discovered	Leif Ericsson, Norse explorer	1000
West Indies	Discovered	Christopher Columbus, Italian navigator	1492
North America	Coast discovered	John Cabot, for British	1497
Pacific Ocean	Discovered	Balboa, Spanish explorer	1513
Florida	Explored	Ponce de León, Spanish explorer	1513
Mexico	Conquered	Cortez, Spanish adventurer	1519
St. Lawrence River	Discovered	Cartier, French navigator	1534
Southwest U. S.	Explored	Coronado, Spanish explorer	1540–42
Colorado River	Discovered	Alarcón, Spanish explorer	1540
Mississippi River	Discovered	Hernando de Soto, Spanish explorer	1541
Frobisher Bay	Discovered	Frobisher, English seaman	1576
Maine Coast	Explored	Champlain, French explorer	1604
Jamestown, Va.	Settled	Smith, English colonist	1607
Hudson River	Explored	Hudson, English navigator	1609
Hudson Bay (Canada)	Discovered	Hudson	1610
Baffin Bay	Discovered	Baffin, English navigator	1616
Lake Michigan	Navigated	Nicolet, French explorer	1634
Arkansas River	Discovered	Marquette and Joliet, French explorers	1673
Mississippi River	Explored	LaSalle, French explorer	1682
Bering Strait	Discovered	Bering, Danish explorer	1728
Alaskan Coast	Sighted	Gvosdeff, Russian sailor	1731
Mackenzie River (Canada)	Discovered	Mackenzie, Scottish-Canadian explorer	1789
Northwest U. S.	Explored	Lewis and Clark	1804–06
Northeast Passage (Arctic Ocean)	Navigated	Nordenskiold, Swedish explorer	1879
Greenland	Explored	Peary, American explorer	1892
Northwest Passage	Navigated	Amundsen, Norwegian explorer	1906

South America

Country or place	Event	Explorer or discoverer	Date
Continent	Visited	Columbus, Italian navigator	1498
Brazil	Discovered	Cabral, Portuguese explorer	1500
Peru	Conquered	Pizarro, Spanish explorer	1532–38
Amazon River	Explored	Orellana, Spanish explorer	1541
Cape Horn	Discovered	Schouten, Dutch navigator	1615

Oceania

New Guinea	Visited	Menezes, Portuguese explorer	1526
Australia	Visited	Jansz, Dutch explorer	1606
Tasmania	Visited	Tasman, Dutch navigator	1642
Australia	Explored	Sturt, English explorer	1828
Australia	Explored	Burke and Wills, Australian explorers	1861

Arctic, Antarctic and Miscellaneous

Ocean exploration	Expedition	Magellan's ships circumnavigated the globe	1519–22
Spitsbergen (Arctic Europe)	Visited	Barents, Dutch navigator	1596
Antarctic Circle	Crossed	Cook, English navigator	1773
Antarctica	Discovered	Palmer, U S. explorer (archipelago) and Bellingshausen, Russian navigator (mainland)	1820–21
Antarctica	Explored	Wilkes, American explorer	1840
North Pole	Discovered	Peary, American explorer	1909
South Pole	Discovered	Amundsen, Norwegian explorer	1911

The Seven Wonders of the World

THE PYRAMIDS OF EGYPT

A group of three pyramids, *Khufu, Khafra* and *Menkaura* at Giza, outside modern Cairo, is often called the first wonder of the world; it is also the oldest and only surviving "wonder." The largest pyramid, built by Khufu (Cheops), had an original estimated height of 482 ft. (now approximately 450 ft.). The exact date of its construction is unknown and has been estimated as early as 4700 B.C. but is probably closer to 2900 B.C.

HANGING GARDENS OF BABYLON

Often listed as the second wonder, these gardens were supposedly built by Nebuchadnezzar about 600 B.C. to please his queen, Amuhia. They are also associated with the mythical Assyrian Queen, Semiramis. Archeologists surmise that the gardens were laid out atop a vaulted building, with provisions for raising water. The terraces were said to rise from 75 to 300 ft.

The Walls of Babylon, also built by Nebuchadnezzar, are sometimes referred to as the second (or the seventh) wonder instead of the Hanging Gardens.

STATUE OF ZEUS (JUPITER) AT OLYMPIA

The work of Phidias (5th century B.C.), this colossal figure in gold and ivory was reputedly 40 ft. high. All trace of it is lost, except for reproductions on coins.

TEMPLE OF ARTEMIS (DIANA) AT EPHESUS

A beautiful structure, begun about 350 B.C. in honor of a non-Hellenic goddess who later became identified with the Greek goddess of the same name. The temple, with Ionic columns 60 feet high, was destroyed by invading Goths A.D. 262.

MAUSOLEUM AT HALICARNASSUS

This famous monument was erected by Queen Artemisia in memory of her husband, King Mausolus of Caria in Asia Minor, who died in 353 B.C. Some remains of the structure are in the British Museum. This shrine is the source of the modern word "mausoleum."

COLOSSUS AT RHODES

This bronze statue of Helios (Apollo), about 105 ft. high, was the work of the sculptor Chares, who reputedly labored for 12 years before completing it in 280 B.C. It was destroyed during an earthquake in 224 B.C.

PHAROS OF ALEXANDRIA

The seventh wonder was the Pharos (lighthouse) of Alexandria, built by Sostratus of Cnidus during the 3rd century B.C. on the island of Pharos off the coast of Egypt. It was destroyed by an earthquake in the 13th century.

Area	Estimated population, in thousands, 1954	Approximate area, in thousands of sq. mi.	Per cent of total land area	Population density per sq. mi.	Elevation, feet: Highest	Elevation, feet: Lowest	Dimensions, miles: East–West	Dimensions, miles: North–South
WORLD	2,625,914	58,337	100.0	45.0	Mt. Everest, Asia, 29,141	Dead Sea, Asia, 1,290 below sea level	24,902	24,860
ASIA, excluding Asiatic U.S.S.R.; including Philippines and Indonesia	1,438,174	10,684	18.3	134.6	Mt. Everest, Tibet-Nepal, 29,141	Dead Sea, Palestine-Jordan, 1,290 below sea level	5,400*	5,300*
AFRICA	209,914	11,628	19.9	18.1	Mt. Kilimanjaro, Tanganyika, 19,565	Qattara Depression, Egypt, 440 below sea level	4,600	5,000
NORTH AMERICA	233,972	9,360	16.0	25.0	Mt. McKinley, Alaska, 20,300	Death Valley, Calif., 275 below sea level	3,200	4,000
SOUTH AMERICA	117,767	6,857	11.8	17.2	Mt. Aconcagua, Argentina, 22,835	Sea level	3,200	4,600
ANTARCTICA	Uninhabited	6,000	10.3	. . . .	Mt. Thorvald Nilson, 15,400	Sea level		
EUROPE, including Iceland; excluding European U.S.S.R.	401,830	1,904	3.3	211.0	Mt. Blanc, France, 15,781	Sea level	3,300†	2,400†
AUSTRALIA	8,796	2,975	5.1	3.0	Mt. Kosciusko, 7,328	Lake Eyre, 38 below sea level	2,400	1,900
OCEANIA, incl. New Zealand and British, U. S., French and Australian territories, possessions, etc.	5,761	330	.6	17.5	Mauna Kea, Hawaii, 13,784	Sea level		
U.S.S.R.	209,700	8,599	14.7	24.4	Mt. Pobedy, 24,409	Caspian Sea, 86 below sea level	5,000	2,500

* Including Asiatic U.S.S.R. † Including European U.S.S.R.

HIGH POPULATION DENSITIES (per square mile)

Monaco	34,240.7	Japan	601.3	Netherlands Antilles	444.1	San Marino	355.3
Netherlands	830.0	United Kingdom	541.8	Germany (East)	422.1	Korea	352.0
Maldive Islands	808.7	Germany (Fed. Rep.)	519.3	Italy	409.5	Ceylon	331.0
Belgium	746.7	Tangier	478.4	Lebanon	393.6	Haiti	316.3

Representative Mountain Peaks of the World

Mountain peak	Range	Location	Height in feet
Everest	Himalayas	Tibet-Nepal	29,141
Godwin Austen (K2)	Karakoram	India	28,25[illegible]
Kanchenjunga	Himalayas	Nepal	28,14[illegible]
Makalu	Himalayas	Tibet-Nepal	27,79[illegible]
Dhaulagari	Himalayas	Nepal	26,7[illegible]
Gurla Mandhata	Himalayas	Tibet	25,3[illegible]
Tirich Mir	Hindu Kush	Pakistan	25,23[illegible]
Muztagh Ata (K5)	Pamirs	Sinkiang	24,38[illegible]
Muztagh	Kunlun	Sinkiang	23,89[illegible]
Aconcagua	Andes	Argentina	22,8[illegible]
Dos Conos	Andes	Argentina	22,5[illegible]
Ojos del Salado	Andes	Argentina-Chile	22,40[illegible]
Huascarán	Andes	Peru	22,20[illegible]
Llullaillaco	Andes	Argentina-Chile	22,14[illegible]
Kailas	Himalayas	Tibet	22,02[illegible]
Mercedario	Andes	Argentina	21,88[illegible]
Tupungato	Andes	Argentina-Chile	21,48[illegible]
Sajama	Andes	Bolivia	21,39[illegible]
Chimborazo	Andes	Ecuador	20,55[illegible]
McKinley	Alaska	Alaska	20,30[illegible]
Logan	St. Elias	Canada (Yukon Territory)	19,85[illegible]
Kilimanjaro	.....	Tanganyika	19,56[illegible]
Cotopaxi	Andes	Ecuador	19,34[illegible]
Cayambe	Andes	Ecuador	19,17[illegible]
Misti	Andes	Peru	19,16[illegible]
Orizaba (Citlaltepetl)	Sierra Madre Oriental	Mexico	18,69[illegible]
Elbrus	Caucasus	U.S.S.R.	18,46[illegible]
St. Elias	St. Elias	Alaska-Canada	18,00[illegible]
Vilcanota	Andes	Peru	17,99[illegible]
Popocatepetl	Cordillera de Anáhuac	Mexico	17,88[illegible]
Cerro de Cuz	Andes	Bolivia	17,82[illegible]
Ixtaccihuatl	Cordillera de Anáhuac	Mexico	17,33[illegible]
Tolima	Andes	Colombia	17,10[illegible]
Dikh-Tau	Caucasus	U.S.S.R.	17,05[illegible]
Kenya	.....	Kenya	17,04[illegible]
Ruwenzori	Ruwenzori	Belgian Congo-Uganda	16,79[illegible]
Kazbek	Caucasus	U.S.S.R.	16,54[illegible]
Bona	Wrangell	Alaska	16,42[illegible]
Klyuchevskaya	Kamchatka	U.S.S.R.	15,91[illegible]
Savalan	Elburz	Iran	15,78[illegible]
Blanc	Alps	France	15,78[illegible]
Lister	.....	Antarctica	15,38[illegible]
Fairweather	St. Elias	Alaska	15,28[illegible]
Dashan	Simen	Ethiopia	15,15[illegible]
Markham	.....	Antarctica	15,1[illegible]
Matterhorn	Alps	Switzerland-Italy	14,78[illegible]
Whitney	Sierra Nevada	California	14,49[illegible]
Elbert	Rockies	Colorado	14,43[illegible]
Massive	Rockies	Colorado	14,4[illegible]
Rainier	Cascades	Washington	14,4[illegible]
Longs	Rockies	Colorado	14,2[illegible]
Colima	Sierra Madre Occidental	Mexico	14,2[illegible]
Shasta	Sierra Nevada	California	14,1[illegible]
Pikes Peak	Rockies	Colorado	14,1[illegible]
Finsteraarhorn	Alps	Switzerland	14,0[illegible]
Gannett Peak	Rockies	Wyoming	13,7[illegible]
Mauna Loa	.....	Hawaii	13,6[illegible]
Jungfrau	Alps	Switzerland	13,6[illegible]
Cameroon	.....	British Cameroons	13,3[illegible]
Erebus	.....	Antarctica	13,2[illegible]
Robson	Rockies	British Columbia	12,9[illegible]
Fujiyama (Fujisan)	.....	Japan	12,3[illegible]
Cook	Southern Alps	South Island, New Zealand	12,3[illegible]
Hood	Cascades	Oregon	11,2[illegible]

Large Islands of the World

Island and status	Location	Area, sq. mi.
REENLAND (Danish territory)	North Atlantic	839,782
EW GUINEA (Under Dutch crown, west part; U. N. trust territory under Australian administration, northeast part; Australian territory, southeast part)	Southwest Pacific	312,329
ORNEO (United States of Indonesia, south part; British protectorate and colonies, north part)	South China Sea	290,012
ADAGASCAR (French overseas territory)	Off southeast coast of Africa	228,589
AFFIN (Canada, Northwest Territories)	Arctic	201,600
UMATRA (United States of Indonesia)	Northeast Indian Ocean	163,145
ONSHU (Japanese home island)	Sea of Japan—Pacific	91,278
REAT BRITAIN (Eng., Scotland, Wales)	Off coast of northwest Europe	88,133
ICTORIA (Canada, Northwest Territories)	Arctic	80,450
LLESMERE (Canada, Northwest Territories)	Arctic Ocean	75,024
ELEBES (United States of Indonesia)	Southwest Pacific	69,255
OUTH ISLAND, NEW ZEALAND	South Pacific	58,093
AVA (United States of Indonesia)	Northeast Indian Ocean	48,504
ORTH ISLAND, NEW ZEALAND	South Pacific	44,281
EWFOUNDLAND (Canadian province)	North Atlantic	42,734
UBA (Republic)	Caribbean Sea	42,350
UZON	Philippine Islands	40,814
CELAND (Republic)	North Atlantic	39,688
INDANAO	Philippine Islands	36,906
OKKAIDO (Japanese home island)	Sea of Japan—Pacific	34,084
RELAND (Ireland, republic, south part; Northern Ireland, part of United Kingdom)	West of Great Britain	31,840
ISPANIOLA (Dominican Republic, east part; Haitian republic, west part)	Caribbean Sea	30,075
ASMANIA (Australian state)	South of Australia	26,215
ANKS (Canada, Northwest Territories)	Arctic	25,992
EYLON (Member of Commonwealth of Nations)	Indian Ocean	25,332
AKHALIN (U.S.S.R.)	North of Japan	24,560
EVON (Canada, Northwest Territories)	Arctic	20,484
IERRA DEL FUEGO (East part to Argentina; west part to Chile)	Southern tip of South America	18,530
IELVILLE (Canada, Northwest Territories)	Arctic	16,164
OUTHAMPTON (Canada, N. W. Territories)	Hudson Bay	16,114

Oceans and Seas

Name	Area, sq. mi.	Average depth, feet	Greatest known depth, ft.	Place of greatest known depth
acific Ocean	63,801,700	14,048	34,440	Off Mindanao
tlantic Ocean	31,830,800	12,880	30,246	Off Puerto Rico
ndian Ocean	28,356,300	13,002	22,968	Off Sumatra-Java
rctic Ocean	5,440,200	3,953	17,850	77° 45′ N.; 175° W.
editerranean Sea*	1,145,100	4,688	15,564	Off Cape Matapan, Greece
aribbean Sea	1,049,500	8,685	22,788	Off Cayman Islands
outh China Sea	895,400	5,419	18,090	West of Luzon
ering Sea	875,800	4,714	13,422	Off Buldir Island
ulf of Mexico	618,200	4,874	12,744	Sigsbee Deep
khotsk Sea	589,800	2,749	11,400	146° 10′ E.; 46° 50′ N.
ast China Sea	482,300	617	9,126	25° 16′ N.; 125° E.
udson Bay	475,800	420	600	Near entrance
ea of Japan	389,100	4,429	12,276	Central Basin
ndaman Sea	308,000	2,854	12,392	Off Car Nicobar Island
orth Sea	222,100	308	2,165	Skagerrak
ed Sea	169,100	1,611	7,254	Off Port Sudan
altic Sea	163,000	180	1,380	Off Gottland

* Including Black Sea and Sea of Azov. NOTE: For Caspian Sea, see Large Lakes of World elsewhere in this ction.

Famous Waterfalls of the World

Waterfall	Location	River	Height, fee
Angel	Venezuela	Tributary of Caroní	3,300
Cuquenán, or Kukenaam	Venezuela-British Guiana	Cuquenán	2,000
Sutherland	South Island, N. Z.	Arthur	1,904
Tugela	Natal, South Africa	Tugela	1,800
Ribbon (Yosemite)	California	Creek, flowing into Yosemite	1,612
Upper Yosemite	California	Yosemite Creek, tributary of Merced	1,430
Gavarnie	Southwestern France	Gave de Pau	1,385
Takkakaw	British Columbia	Tributary of Yoho	1,200
Widow's Tears (Yosemite)	California	Tributary of Merced	1,170
Staubbach	Switzerland	Staubbach (Lauterbrunnen valley)	980
Trummelbach	Switzerland	Trummelbach (Lauterbrunnen)	950
Middle Cascade (Yosemite)	California	Yosemite Creek, tributary of Merced	910
Multnomah	Oregon	Multnomah Creek, tributary of Columbia	850
Vettisfos	Norway	Morkedöla	850
King Edward VII	British Guiana	Courantyne	840
Gersoppa	India	Sharavati	830
Kaieteur	British Guiana	Pataro	741
Kalambo	Tanganyika-N. Rhodesia	.....	705
Fairy (Mt. Rainier Park)	Washington	Stevens Creek	700
Maradalsfos	Norway	Stream flowing into Ejkisdalsvand (lake)	650
Skykkjefos	Norway	In Skykkjedal (valley) of Inner Hardanger Fiord	650
Terni	Italy	Velino, tributary of Nera	650
Maletsunyane (Le Bihan)	Basutoland, Africa	Maletsunyane	630
Bridal Veil (Yosemite)	California	Bridal Veil Creek, tributary of Merced	620
Nevada (Yosemite)	California	Merced	594
Voringfos	Norway	Bjoreia	535
Skjaeggedalsfos	Norway	Tyssaå	525
Marina	British Guiana	Tributary of Kuribrong, a tributary of the Pataro	500
Tequendama	Colombia	Bogotá	450
King George's	Cape Province, South Africa	Orange	450
Herval Cascades	Brazil	.....	400
Guayra	Paraguay-Brazil	Paraná	374
Illilouette (Yosemite)	California	Illilouette Creek, tributary of Merced	370
Granite (Mt. Rainier Park)	Washington	Granite Creek	350
Splendor of Sun	Nikko, Japan	.....	350
Victoria	Southern Rhodesia	Zambezi	340
Comet (Mt. Rainier Park)	Washington	Van Trump Creek	320
Lower Yosemite	California	Yosemite Creek	320
Vernal (Yosemite)	California	Merced	317
Virginia	Northwest Territories, Canada	South Nahanni, tributary of Mackenzie	316
Lower Yellowstone	Wyoming	Yellowstone	308
Grand	Labrador, Canada	Hamilton	300
Sluiskin (Mt. Rainier Park)	Washington	Paradise	300
Snoqualmie	Washington	Snoqualmie	270
Seven Falls	Colorado	.....	266
Tallulah	Georgia	Tallulah	256
Shoshone	Idaho	Snake	195
Narada (Mt. Rainier Park)	Washington	Paradise	168
Niagara	New York-Ontario	Niagara	167
Tower (Yellowstone)	Wyoming	Tower Creek, tributary of Yellowstone	132

PRINCIPAL DESERTS OF THE WORLD

Desert	Location	Approximate size	Appx. elevation, ft.
Atacama	North Chile	400 mi. long	7,000–13,500
Black Rock	Northwest Nevada	70 mi. long and in places 20 mi. wide, or about 1,000 sq. mi.	2,000–5,000
Colorado	Southeast California from San Gorgonio Pass to Gulf of California	200 mi. long and a maximum width of 50 mi.	Few feet above to about 250 below sea level
Dasht-i-Kavir	Southeast of Caspian Sea in Iran		2,000
Dasht-i-Lut	Northeast of Kerman in Iran		1,000
Gobi (Shamo or "Desert of Sand")	Covers most of Mongolia	800 by 400 mi., or at least 300,000 sq. mi.	3,000–5,000
Great Arabian	Most of Arabia	1,500 mi. long	
Syrian (El Hamad)	North of 30° N. Latitude		1,850
Nefud (Red Desert)	South of Jauf	400 mi. long and average of 200 mi. wide	3,000
Dahna	Southeast of Nefud	400 by 30 mi.	
Rub' al Khali	South portion of Nejd		
Great Australian (Includes: Great Sandy; Gibson; Great Victoria; Arunta.)	Western portion of Australia	About one-half the continent	600–1,000
Great Salt Lake	West of Great Salt Lake to Nevada-Utah line.	80 by 50 mi.	4,500
Kalahari	South Africa between the Orange and Zambezi Rivers	400 by 600 mi., or about 120,000 sq. mi.	Over 3,000
Kara Kum (Desert of Khiva or "Black Sands")	Southwest Turkestan south of Lake Aral	110,000 sq. mi.	
Kizil Kum	Central Turkestan southeast of Lake Aral	370 by 220 mi., or about 70,000 sq. mi.	160 near Lake Aral to 2,000 in southeast
Mohave	North of Colorado Desert and south of Death Valley in southeast California	15,000 sq. mi.	2,000
Painted Desert	Northeast Arizona	75 mi. wide	High plateau 5,000
Sahara	Northern states of Africa to about 15° N. Lat. and from Red Sea to the Atlantic Ocean	3,200 mi. greatest length along 20° N. Lat.; width varies from 800 to 1,400 mi. Area over 3,500,000 sq. mi.	440 below sea level to 11,000 above with an average elevation of 1,400–1,600
Libyan	East portion of the Sahara west of Nile	More than 500,000 sq. mi.	
Nubian	From Red Sea to great west bend of the Nile		2,500
Takla Makan	S. Central Sinkiang in Tarim Basin	700 mi. long	
Thar (Indian)	Chiefly Rajputana, India	About 300 mi. by 380 mi.	About 500

Gestation, Incubation and Longevity of Certain Animals

Source: T. Donald Carter, American Museum of Natural History.

Animal	Gestation and incubation, in days & (average)	Longevity, in years & (record exceptions)	Animal	Gestation and incubation, in days & (average)	Longevity, in years & (record exceptions)
Ass	340–385	18–20 (46)	Kangaroo	c. 39	10–12 (16)
Bear	180–240*	15–20 (34)	Lion	105–111	10 (29)
Cat	52–65	10–12 (21)	Mare	304–419 (336)	20–25 (50+)
Chicken	21	7–8 (14)	Monkey	149–179* (164)	12–15* (29)
Cow	c. 280	9–12 (25)	Mouse	19–31*	1–3 (4)
Deer	140–246*	10–15 (26)	Parakeet (Budgerigar)	17–20 (18)	8 (12+)
Dog	55–70 (63)	10–12 (24)	Pigeon	18	10–12 (39)
Duck	21–35* (28)	10 (15)	Rabbit	27–36 (31)	6–8 (15)
Elephant	515–760* (628)	30–40 (98)	Rat	21–30 (22)	3 (5)
Ewe	146–161 (151)	12 (16)	Sow	101–130 (115)	10 (22)
Goat	135–163 (150)	12 (17)	Squirrel	28–35	8–9 (15)
Groundhog	28–42	4–7	Vixen (fox)	51–60	8–10 (14)
Guinea pig	63–71	3 (6)	Whale	276–365*	
Hamster, golden	15–19	2	Wolf	63	10–12 (16)
Hippopotamus	220–255	30 (49+)	Woman	270+ or —	72†

* Depending on kind. † Latest life expectancy charts list this age.

Principal Rivers of the World

River	Source	Outflow	Approx. length, miles
Nile	Lake Victoria	Mediterranean Sea	4,000
Missouri-Mississippi	Source of Red Rock Creek, Montana	Gulf of Mexico	3,988
Amazon	Glacier-fed lakes, Peru	Atlantic Ocean	3,900
Ob	Altai Mts., U.S.S.R.	Gulf of Ob	3,200
Yangtze Kiang	Tibetan plateau	China Sea	3,100
Amur	Confluence of Shilka (U.S.S.R.) and Argun (Manchuria) Rivers	Tartary Strait	2,900
Congo	Between Lakes Nyasa and Tanganyika	Atlantic Ocean	2,900
Lena	Baikal Mts., U.S.S.R.	Arctic Ocean	2,800
Yenisei	Tannu Ola Mountains, western Mongolia	Arctic Ocean	2,800
Hwang Ho (Yellow)	East part of Kunlun Mts., west China	Gulf of Chihli	2,700
Niger	Border of Sierra Leone	Gulf of Guinea	2,600
Mackenzie	Head of Finlay River, British Columbia	Beaufort Sea (Arctic Ocean)	2,514
Mékong	Tibetan highlands	South China Sea	2,500
Missouri	Actual headwaters Red Rock Creek; beginning of Missouri at confluence of Gallatin, Madison, Jefferson Rivers	Mississippi River	2,475 (confluence) 2,723 (headwaters)
Mississippi	Lake Itasca, Minnesota	Gulf of Mexico	2,470
Paraná	Confluence of Paranaiba and Grande Rivers, southeast Brazil	Río de la Plata (Atlantic Ocean)	2,450
Murray	Australian Alps, New South Wales	Indian (Southern) Ocean	2,310
Irtish	Altai Mts., U.S.S.R.	Ob River	2,300
Volga	Valdai plateau, U.S.S.R.	Caspian Sea	2,300
Madeira	Confluence of Gauporé and Maumoré Rivers, Bolivia-Brazil border	Amazon River	2,000
St. Lawrence	St. Louis River, Minn.	Gulf of St. Lawrence	1,900
Purús	Southwest Amazonas, Brazil	Amazon River	1,850
Rio Grande	San Juan Mts., Colorado	Gulf of Mexico	1,800
São Francisco	Southwest Minas Geraes, Brazil	Atlantic Ocean	1,800
Yukon	Junction of Lewes and Pelly, Yukon Territory	Bering Sea	1,800
Salween	Tibet, south of Kunlun Mountains	Gulf of Martaban	1,750
Danube	Black Forest, Germany	Black Sea	1,725
Euphrates	Dumlu Dagh (mountains), Turkey	Persian Gulf	1,700
Indus	Himalayas	Arabian Sea	1,700
Orinoco	Sierra Parima on Venezuela-Brazil boundary	Atlantic Ocean	1,700
Tocantins	Near Pyrenopolis, southeast Brazil	Pará River (Atlantic Ocean)	1,700
Brahmaputra	Himalayas	Ganges River (Bay of Bengal)	1,680
Nelson	Head of Bow River, west Alberta, Canada	Hudson Bay	1,660
Si Kiang	Plateau of Yunnan, southwest China	China Sea	1,650
Zambezi	11°21′S.; 24°22′E., Northern Rhodesia, Africa	Indian Ocean	1,600
Ganges	Himalayas	Bay of Bengal	1,540
Amu Darya (Oxus)	Nicholas Range, Pamir Mountains, U.S.S.R.	Lake Aral	1,500

River	Source	Outflow	Approx. length, miles
raguay	Mato Grosso, Brazil	Paraná River	1,500
apurá	Andes, Colombia	Amazon River	1,500
kansas	Central Colorado	Mississippi River	1,450
olorado	Middle Park, northern Colorado	Gulf of California	1,440
nieper	Valdai Hills, U.S.S.R.	Black Sea	1,400
egro	Watershed between Orinoco and Amazon	Amazon River	1,400
ral	Southern Ural Mountains, U.S.S.R.	Caspian Sea	1,400
hio-Allegheny	Plateau in Potter County, Pa.	Mississippi River	1,306
range	Basutoland, Africa	Atlantic Ocean	1,300
rawaddy	Confluence of N'mai and Mali Rivers, northeast Burma	Bay of Bengal	1,250
olumbia	Columbia Lake, British Columbia	Pacific Ocean	1,214
askatchewan	Western Alberta, Canada	Lake Winnipeg	1,205
arling	Central part of Eastern Highlands, Australia	Murray River	1,160
igris	Taurus Mts., Turkey	Euphrates River (Persian Gulf)	1,150
ungari	Sungari Reservoir, Manchuria, China	Amur River	1,130
on	Lake Ivan, U.S.S.R.	Sea of Azov	1,100

Large Lakes of the World

Name and location	Area, sq. mi.	Length, miles	Maximum depth, feet	Elevation above sea level, feet
Caspian, U.S.S.R.–Iran†	169,300	795	3,612	−86
Superior, U. S. A.–Canada	31,820	383	1,290	602
Aral, U.S.S.R.	26,233	280	222	155
Victoria, East Central Africa	26,200	250	270	3,720
Huron, U. S. A.–Canada	23,010	247	750	580
Michigan, U. S. A.	22,400	321	923	580
Baikal, U.S.S.R.	13,300	411	5,413	1,515
Tanganyika, East Central Africa	12,700	450	4,708	2,536
Great Bear, Canada	12,000	195	270*	391
Great Slave, Canada	11,170	325	——	495
Nyasa, Southern Africa	11,000	350	2,580	1,650
Erie, U. S. A.–Canada	9,940	241	210	572
Winnipeg, Canada	9,398	260	70	712
Ontario, U. S. A.–Canada	7,540	193	778	245
Balkhash, U.S.S.R.	7,115	430	36	900
Ladoga, U.S.S.R.	7,000	125	730	55
Onega, U.S.S.R.	3,764	145	408	125
Rudolf, Eastern Africa	3,475	185	——	1,250
Titicaca, Bolivia–Peru	3,200	125	892	12,507
Nicaragua, Nicaragua	3,089	110	200	135
Athabaska, Canada	3,058	195	——	699
Reindeer, Canada	2,444	155	——	1,150
Issyk-Kul, U.S.S.R.	2,230	115	2,300	5,400
Koko Nor, China	2,200	66	——	10,000
Vänern, Sweden	2,143	87	292	144
Winnipegosis, Canada	2,086	122	38	831
Bangweulu, East Central Africa	1,900	60	15	3,700
Nipigon, Canada	1,870	70	——	852
Manitoba, Canada	1,817	120	12*	813
Urmia, Iran	1,750*	80–90	50	4,184
Albert, Uganda, Africa	1,640	100	50	2,037
Dubawnt, Canada	1,600	65	——	500
Great Salt, U. S. A.	1,500	75	15–25*	4,200
Van, Turkey	1,453	80	——	5,643

* Average. † The name Caspian *Sea* is a misnomer; it is a land-locked lake, so classified by oceanographers.

Volcanoes of the Earth

There are approximately 430 volcanoes (275 in the Northern Hemisphere and 155 in the Southern) with recorded eruptions in historical times. Of the 2,500 recorded eruptions, more than 2,000 have taken place in the Pacific area. Of known active volcanoes, about 80 are of the submarine type.

ATLANTIC-INDIAN AREA

Mediterranean Region

Italy: Mt. Vesuvius, southeast of Naples (3,858 ft.). Only active volcano on mainland of Europe. Pompeii buried by an eruption, A.D. 79. Latest eruption in 1944.

Sicily: Mt. Etna, eastern Sicily (10,741 ft.). Two new craters formed in eruptions of Feb.–Mar., 1947. Worst eruption in 50 years occurred Nov., 1950–Jan., 1951.

Lipari Islands (north of Sicily): Stromboli (about 3,000 ft.). Called "Lighthouse of the Mediterranean." Erupted 1954.

Atlantic Area

Canary Islands: Pico de Teide (Teneriffe), on island of Teneriffe (12,192 ft.).

Cape Verde Islands: Fogo (over 8,000 ft.). Severe eruption in 1857; last until 1951.

Iceland: At least 25 volcanoes active in historic times. These volcanoes very similar to those in Hawaii.

Hekla (4,747 ft.). Several craters, largest about 1¼ mi. in circumference. Most recent eruptions reported in 1947–48.

Skaptarjökull. Series of volcanoes near Skaptar; erupted in 1783 with large loss of life and produced largest known single output of lava.

Askja (4,600 ft.). Largest in Iceland.

Jan Mayen Island: Beerenberg, northern part of island (over 8,000 ft.). Extinct.

British Cameroons: Mt. Cameroon (13,353 ft.). Has several craters. Last erupted in 1922.

Lesser Antilles (West Indian Islands): Mt. Pelée, in northwestern Martinique (about 4,400 ft.). Eruption in 1902 destroyed town of St. Pierre and killed approximately 40,000.

Indian Ocean Region

Comoro Islands (east of northern Mozambique): One volcano, Kartala (over 8,500 ft.). Visible for over 100 miles. Last erupted in 1904.

Réunion Island (east of Madagascar): Piton de la Fournaise (Le Volcan) (8,610 ft.). Large lava flows.

Tanganyika Territory: Kilimanjaro (19,565 ft.). Extinct. Highest mountain in Africa.

THE PACIFIC AREA

Northwest Portion

Kamchatka: 14–18 active volcanoes.

Shiveluch (over 10,500 ft.). Most northerly volcano of Kamchatka group.

Klyuchevskaya (Kluchev) (15,912 ft.). Erupted 1954.

Koryatskaya (over 11,500 ft.). Violent eruption in 1895.

Kurile Islands: At least 13 active volcanoes and several submarine outbreaks.

Japan: at least 33 active vents.

Fujiyama (Fujisan), southwest of Tokyo (12,385 ft.). Symmetrical in outline, snow-covered. Regarded as a sacred mountain.

Adzumayama (7,733 ft.).

Asamayama (8,182 ft.). Continuously active; violent eruption in 1783; latest in 1955.

Asosan (5,223 ft.). Crater 10 by 15 miles is the largest known in the world; erupted most recently in 1953, killing several students.

Bandaisan, about 125 miles north of Tokyo (9,037 ft.). Violent eruption in 1888 devastated a 27-square-mile area.

Ryukyu archipelago: Nakano-shima (3,485 ft.); Suwanose-shima (2,697 ft.).

Bonin (Ogasawara) Islands: Mt. Suribachi, on Iwo Jima (546 ft.). A sulfurous steaming volcano. Raising of U. S. flag over Mt. Suribachi was one of the dramatic episodes of World War II.

New Britain archipelago: Numerous active vents, including Father, on New Britain (7,500 ft.).

Santa Cruz Islands: Tinakula (2,200 ft.).

New Hebrides: Lopevi (4,755 ft.).

Samoan archipelago: Savaii. An eruption in 1905 did considerable damage. Niuafoou (Tin Can) between Samoa and Fiji Islands has a crater 6,000 feet below and 600 feet above water.

Philippine Islands: about 100 eruptive centers; Hibok Hibok on Camiguin island erupted in Sept. 1950, and again in Dec. 1951, when about 750 were reported killed or missing; eruptions continued in 1952–53.

Taal, on Volcano Island in Lake Bombon (about 1,000 ft.). Crater over 7,500 ft. in diameter.

Mayon, in southeastern Luzon (7,946 ft.). An almost perfect cone. Continuous mild activity. Destructive eruption in 1897.

Moluccas: A volcanic chain of islands which contains several active volcanoes.

Hawaiian Group:

Mauna Loa (13,680 ft.). Also called "Long Mountain." Discharges more lava than any other volcano. Largest volcanic mountain in the world in cubic content, with crater of 3.7 sq. mi. Violent eruption in June 1950, with lava pouring 25 mi. into the ocean.

Mauna Kea (13,784 ft.). Highest mountain in group.

Hualalai (8,269 ft.). Has many small pit aters. Only lava flow in historic times was 1801.

Kilauea (4,090 ft.). A vent in side of auna Loa but apparently erupts inde-ndently of it. One of the most spectacu-r and active craters. Crater has an area 4.14 sq. mi. Erupted 1952 and again in 55, with considerable damage.

Southwest Portion

Sumatra: Ninety volcanoes have been scovered; 12 are now active. The most mous, Krakatoa, is a small volcanic is-nd in the Sunda Strait. Numerous vol-anic discharges occurred in 1883. One ex-osion caused the disappearance of the ighest peak and the northern part of he island. Fine dust was carried around he world in the upper atmosphere. Over 3,000 persons lost their lives in resultant dal waves, which were felt as far away as ape Horn. Active in 1928, 1950 and 1953.

Java: Thirteen of 125 volcanic centers re active. Few serious eruptions. Galung-ung is famous for two destructive erup-ons in 1822. It is thought that over 100 illages and about 4,000 lives were lost. ruption of Merapi in 1954 caused number f deaths.

Lesser Sunda Islands: Fifteen eruptive ones. Tamboro on Soembawa (Sumbawa) about 9,000 ft.) was 13,000 ft. prior to a evere eruption in 1815, which ejected an stimated 36 cu. mi. of material.

Melanesian area: Volcanoes are located n New Guinea, New Hebrides, Santa Cruz, olomons, and on numerous other small slands. Eruption of Mt. Lamington in apua Territory, New Guinea, in Jan., 951, killed more than 3,000.

New Zealand: Tarawera, on North Island. levere eruption in 1886 destroyed the fa-nous pink and white sinter terraces of Rotomahana, a hot lake.

Ngauruhoe (7,515 ft.). Emits steam and apor incessantly. Major eruptions, 1952–54.

Northeast Portion

Aleutian area: There are 32 active vents nown, and numerous inactive cones.

Shisaldin, on Unimak (8,683 ft.). Latest ruption Jan., 1947.

Bogosloff, on Bogosloff island (Castle) about 1,000 ft.). Mountain first appeared fter an eruption in 1796.

Alaska:

Wrangell (14,005 ft.).

Katmai (about 7,500 ft.). On June 6, 912, a violent eruption occurred, during which the "Valley of Ten Thousand Smokes" was formed. Erupted 1951, 1953.

United States: Lassen Peak, in California 10,453 ft.). Only observed active volcano n the United States. Last period of ac-ivity in 1914–17. Other mountains of vol-anic origin include Mt. Shasta, Mt. Hood, Mt. Rainier, and the mountain that con-ains Crater Lake.

Mexico:

Popocatepetl (17,883 ft.). Crater 673 ft. deep and 2½ mi. in circumference. Not entirely extinct; steam still escapes.

Colima (14,239 ft.), in group that has had frequent eruptions.

Orizaba (Citlaltepetl) (18,696 ft.).

Tuxtla (4,900 ft.). Had a violent eruption in 1793 but is now quiescent.

Paricutín. First appeared in Feb., 1943. In less than a week a cone over 140 ft. high developed with a crater one quarter mile in circumference. Cone grew over 1,500 ft. in 1943. Erupted 1952.

Boquerón ("Big Mouth"). Newest volcano in Western Hemisphere, discovered Sept., 1952 on San Benedicto island, about 250 mi. south of Lower California.

Guatemala:

Santa María Quezaltenango (12,361 ft.). Frequent activity between 1902–08 and 1922–28 after centuries of quiescence. Most dangerously active vent of Central America. Other volcanoes include Tajumulco (13,814 ft.) and Atitlán (11,633 ft.).

El Salvador: Izalco, "beacon of Central America," which first appeared in 1770 and is still growing (erupted in July, 1950); San Salvador, which had a violent eruption in 1923 and Conchagua, which erupted with considerable damage early in 1947.

Nicaragua: Volcanoes include Telica, Coseguina and Momotombo. Between Momotombo on the west shore of Lake Managua and Coseguina overlooking the Gulf of Fonseca, there is a string of more than 20 cones, many still active. One of these, Cerro Negro, erupted in July, 1947, with considerable damage and loss of life, and again in 1948–50.

Costa Rica: Four volcanic cones whose bases merge are Poás (8,895 ft.), Barba (9,280 ft.), Irazú (10,525 ft.), and Turrialba (11,350 ft.).

Southeast Portion

Colombia: Huila (18,700 ft.), a vapor-emitting volcano, and Tolima (17,109 ft.).

Eruption of Puracé (15,420 ft.), 1949, killed 17.

Ecuador: Cotopaxi (19,344 ft.). Perhaps highest active volcano in the world. Possesses a beautifully formed cone.

Cayambe (19,170 ft.). Almost on equator.

Other volcanoes include Tunguragua (16,689 ft.), Sangay (17,470 ft.), and Antisana (over 18,000 ft.).

Peru and Bolivia: Many active volcanoes.

Misti, near Arequipa, Peru (19,167 ft.)

Sajama, in Bolivia (21,391 ft.).

Licancábur, in Bolivia (about 19,500 ft.).

Chile and Argentina: About 25 active or potentially active; destructive eruption of Villarrica, Chile, 1948; active in 1949.

Interesting Caves and Caverns of the World

Aggtelek. In village of same name, northern Hungary. Large stalactitic cavern about 5 miles long.

Altamira Cave. Near Santander, Spain. Contains animal paintings (Old Stone Age art) on roof and walls.

Antiparos. On island of same name in the Grecian Archipelago. Some stalactites are 20 ft. long. Brilliant colors and fantastic shapes.

Blue Grotto. On island of Capri, Italy. Cavern hollowed out in limestone by constant wave action. Now half filled with water because of sinking coast. Name derived from unusual blue light permeating the cave. Source of light is a submerged opening, light passing through the water.

Carlsbad Caverns. Southeast New Mexico. Largest underground labyrinth yet discovered. Three levels: 754, 900, and 1,320 feet below the surface.

Fingal's Cave. On island of Staffa off coast of western Scotland. Penetrates about 200 ft. inland. Contains basaltic columns almost 40 ft. high.

Ice Cave. Near Dobsina, Czechoslovakia. Noted for its beautiful crystal effects.

Jenolan Caves. In Blue Mountain plateau, New South Wales, Australia. Beautiful stalactitic formations.

Kent's Cavern. Near Torquay, England. Source of much information on Paleolithic man.

Luray Cavern. Near Luray, Virginia. Has large stalactitic and stalagmitic columns of many colors.

Mammoth Cave. Limestone cavern in central Kentucky. Cave area is about 10 miles in diameter but has at least 150 miles of irregular subterranean passageways at various levels. Temperature remains fairly constant at 54°F.

Peak Cavern or Devil's Hole. Derbyshire, England. About 2,250 ft. into a mountain. Lowest part is about 600 ft. below the surface.

Postumia (Adelsberg) Grotto. Near Postumia in Julian Alps, about 25 miles N.E. of Trieste. Stalactitic cavern, largest in Europe. Piuca (Pivka) River flows through part of it. Caves have numerous beautiful stalactites.

Singing Cave. Iceland. A lava cave; name derived from echoes of people singing in it.

Wind Cave. In Black Hills of South Dakota. Limestone caverns with stalactites and stalagmites almost entirely missing. Variety of crystal formations called "boxwork."

Wyandotte Cave. In Crawford County, southern Indiana. A limestone cavern with five levels of passages; one of the largest in North America. "Monumental Mountain," approximately 135 ft. high, is believed to be one of the world's largest underground "mountains."

Geysers

Geysers exist in many volcanic regions of the world such as Japan and South America, but their greatest development is in Iceland, New Zealand and Yellowstone National Park, Wyoming, U. S. A.

Iceland. The principal geyser area is about 30 miles northwest of Mt. Hekla, where there are more than 100 geysers and hot springs in about two square miles. The main ones are the following:

Great Geyser (*Geysir*). Sends up a column 160 to 180 ft. high intermittently from an opening more than 9 ft. across and about 70 ft. deep.

Strokkr (*Churn*). Constant bubbling and occasional eruptions.

New Zealand. There is a great profusion of boiling springs, steam jets and mud volcanoes northeast of Lake Taupo on North Island. Main geysers are *Waikite,* with a 30–35 ft. column, *Pohutu* and *Waimauku.*

United States

Yellowstone National Park, Wyoming. There are 120 named geysers in Yellowstone and perhaps half that number unnamed. Most of the geysers and the 4,000 or more hot springs are located in the western portion of the park. The most important are the following:

Norris Geyser Basin has 24 or more active geysers; the number varies. There are scores of steam vents and hot springs. *Valentine* is highest, erupting 50–75 ft. at intervals varying from 18 hr. to 3 days or more. *Minuté,* 15–20 ft. high, several hours apart. Others include *Steamboat, Fearless, Veteran, Vixen, Corporal, Whirligig, Little Whirligig* and *Pinwheel.*

Lower Geyser Basin has at least 18 active geysers. *Fountain* throws water 50–75 ft. in all directions at unpredictable intervals. *Clepsydra* erupts violently from four vents up to 30 ft. *Great Fountain* plays every 8 to 15 hr. in spurts from 30 to 90 ft. high.

Midway Geyser Basin has vast steaming terraces of red, orange, pink and other colors; there are pools and springs, including the beautiful *Grand Prismatic Spring. Excelsior* crater discharges boiling water into Firehole River at the rate of 6 cu. ft. per second.

Upper Geyser Basin includes *Artemisia*, ich sends up a column 15–35 ft. every to 30 hr. *Riverside* has an unusual cone; throws water 75 ft. obliquely over the er for half an hour. Interval ranges from to 8½ hr.

Rocket is irregular and unpredictable, as its neighbor *Grotto*.

Giant erupts up to 200 ft. at intervals of ½ days to 3 mo.; eruptions last about ½ hr. *Daisy* sends water up to 75 ft. but irregular and frequently inactive.

Old Faithful sends up a column varying om 116 to 175 ft. at intervals of about 65 in., varying from 33 to 90 min. Eruptions st about 4 min., during which time about ,000 gal. are discharged.

Giantess seldom erupts, but during its tive periods sends up streams 150–200 ft.

Lion Group: Lion plays up to 60 ft. every 2–4 days when active; *Little Cub* up to 10 ft. every 1–2 hr. *Big Cub* and *Lioness* seldom erupt.

Castle usually erupts twice daily to a height of 75 ft.

Mammoth Hot Springs. There are no geysers in this area. The formation is travertine. Sides of a hill are steps and terraces over which flow the steaming waters of hot springs laden with minerals. Each step is tinted by algae to many shades of orange, pink, yellow, brown, green and blue. Terraces are white where no water flows.

Other groups of geysers, hot pools and mud pots are located on the west shore of Shoshone Lake, on West Thumb Bay, at Mud Volcano, in the Grand Canyon of the Yellowstone, and on Mirror Plateau.

Famous Ship Canals of the World

ame	Location	Year opened	Length (mi.)	Width (ft.)	Depth (ft.)	Locks
lbert	Belgium	1939	80.0	53.0	16.5	6
msterdam–Rhine	Netherlands	1952	45.0	164.0	41.0	3
eaumont–Port Arthur	United States	1916	40.0	200.0	34.0	..
hesapeake and Delaware	United States	1927	19.0	250.0	27.0	..
ouston	United States	1914	50.0	200.0	33.0	..
iel	Germany	1895	53.3	144.0	37.0	4
anama	Canal Zone	1914	50.0	110.0	41.0	12
ault Ste. Marie	Canada	1895	1.2	60.0	16.8	1
ault Ste. Marie	United States	1915	1.6	80.0	25.0	4
uez	Egypt	1869	87.5	197.0	34.0	..
elland	Canada	1931	27.6	80.0	25.0	8

World Extremes of Climate

Data from U. S. Weather Bureau

ighest recorded shade temperature:
World: 136° F. at Azizia, Libya, North Africa, September 13, 1922.
United States: 134° F. at Death Valley, California, July 10, 1913.

owest recorded temperature:
World: —90° F. at Verkhoyansk, Siberia, U.S.S.R., February 5 and 7, 1892; a temperature of —94° F. was reported in Siberia during the winter of 1946–47 but was not verified by the Soviet government.
United States: —70° F. at Rogers Pass, Montana, January 20, 1954.

ighest mean annual temperature:
World: 86° F. at Massawa, Eritrea, Africa.
United States: 77.6 at Key West, Fla.

Lowest mean annual temperature:
World:—14° F. at Framheim, Antarctica.
United States: 27.0° F. at Mt. Washington, N. H. (22-year record).

Maximum rainfall for 24-hour period:
World: 46 inches at Baguio, Luzon, Phillipines, July 14–15, 1911.
United States: 26.12 inches at Hoegees Camp (Camp Le Roy), California, January 22–23, 1943.

Maximum recorded rainfall in one month:
366 inches at Cherrapunji, India, July, 1861 (over 150 inches fell in 5 consecutive days in August, 1841). Average annual rainfall at Cherrapunji is 450 inches. The 38-year average annual rainfall at Mt. Waialeale, Island of Kauai, Hawaiian Islands, however, is 472 inches.

Minimum recorded rainfall:
World: .04 inch at Iquique, Chile, average yearly fall during 40 years.
United States: 1.76 inches at Greenland Ranch, California, average yearly fall during 41 years. During one period of 401 consecutive days, this station recorded no rain.

Average annual precipitation for the United States is about 29 inches.
Louisiana is the wettest state, with an annual average (64 years) of 57.34 inches.

Nevada is the driest state, with an annual average (64 years) of 8.60 inches.
Highest local average annual rainfall in the United States was 150.73 inches at Wynoochee Oxbow, Washington, based on a 13-year record.
Greatest 6-hour fall was at Lake Charles, La., 15.38 inches, on June 19, 1947. Greatest 24-hour U. S. rain (unofficially observed) was 38.2 inches, Thrall, Tex., Sept. 9–10, 1921.
Heavy snowfall records include 60 inches in one day at Giant Forest, California; 8[illegible] inches in 27½ hours and 95 inches in 32½ hours at Silver Lake, Colorado; and 4[illegible] inches in 2 days at Angola, New York. In the New York City blizzard of Dec. 26[illegible] 1947, 25.8 inches of snow fell in about 20 hours, almost 5 inches more than fell in the blizzard of March, 1888. Greatest seasonal snowfall was 884 inches, over 73 feet, at Tamarack, California, during 1906–07.
Large hailstones include one 17 inches in circumference and weighing 1½ pounds which fell at Potter, Nebraska, July 6, 1928.

Ancient Empires

The *Egyptian* and *Babylonian* empires, Near Eastern civilizations whose cultures mark the beginning of written history, had their origins in the nebulous period of ancient history prior to the year 4000 B.C. They developed rapidly in the fertile river valleys of the Nile in Egypt and the Tigris-Euphrates in Mesopotamia after the discovery of metals and the invention of writing. Their governments were all-powerful, with the people subjugated and without political rights. The Egyptians regarded their king as a god. In Babylon, the ruler was a priest-king, earthly representative of the gods. Nevertheless, these Near East cultures made great contributions to the eternal march of man; they advanced the ways of making and doing things, produced the earliest literature, developed the principles of law (the code of Hammurabi, Babylonian king of the 18th [or possibly 17th] century B.C., the oldest code of law) and science, learned the basic principles of art, and evolved early religious worship.

The influence of Babylon and Egypt was felt in the rise of the Semitic tribes of Syria, the Hittites in Asia Minor, and the people of the Aegean region. Between the years 1200 and 800 B.C., the small Syrian states grew to great power and then were overwhelmed by the great empire of the *Assyrians*, the warlike peasants of the Tigris valley, who took the lessons learned from the Babylonians and spread that culture over their domains. The Assyrians, like the Egyptians and the Babylonians, in turn fell under the power of the *Persian* kings in the century between 600 and 500 B.C. By 525 B.C., the Persian Empire extended from India to Egypt, the greatest the world had ever seen.

The lessons learned by these early Near Eastern civilizations were transmitted to *Greece*, which developed its illustrious empire in the Aegean region, after the inhabitants of the island of Crete had absorbed the Egyptian culture. The mainland Greeks overthrew the Cretans and in turn were succeeded by the Doric Greeks, who spread their culture across the Aegean, the Asia Minor coast, and into the Mediterranean and Black Sea regions. The characteristic Greek political institution was the city-state, first ruled by kings and often temporary monarchical tyrannies and finally by the participation of free citizens. Literature and the arts flourished and by the 5th century B.C., when Athens became the great city of the Greeks, drama had risen to full maturity with the great tragedies of Sophocles and Euripides and the comedies of Aristophanes. Architecture and art advanced apace. The Greeks, learning much from their Egyptian teachers, produced such superb buildings as the Parthenon and created amazingly beautiful statues through the use of living models. Religion, which was closely linked with art, also flourished, as did the development of philosophy, under the great Socrates (470?–399 B.C.), Plato (427?–347 B.C.), and Aristotle (384–322 B.C.). Wars weakened the city-states, and they fell to Alexander the Great in the 4th century B.C.

Last among the great ancient empires was the *Roman*, which developed in Italy and gained control over the Mediterranean region after absorbing the culture of Greece and combining with it new principles of law and art and teaching this new learning to the West. The development of the Roman civilization began in 510 or 509 B.C., when the peoples on the peninsula of Italy freed themselves from the rule of the Etruscans. The Romans with a republican form of government speedily conquered Italy and the Mediterranean region, and the Roman governors became men of great wealth, corrupting the city-state system and making it a graft-ridden machine of exploitation. The failure of the government to check this self-seeking influence brought on a revolt which resulted eventually in the rise of Julius Caesar to dictatorship in 46–44 B.C. Caesar's murder in the Senate at Rome was followed in 27 B.C. by the establishment of the one-man rule of Augustus over the Roman Empire. Legal practices were developed and became the foundations of modern law. Great roads, bridges and buildings were constructed. This great ancient civilization began to crumble in the 3d century A.D.

Languages of the World

(spoken natively by 5,000,000 or more people)

Language	Number speaking
nerican Indian: including Mayan, Quéchua and 750–1,000 other languages and dialects	15,000,000
mharic (Ethiopia)	5,600,000
nnamese (Indo-China)	20,000,000
rabic	65,000,000
antu: including Swahili, Zulu (S. Africa)	45,000,000
engali (India; Pakistan)	70,000,000
erber dialects (N. Africa)	6,000,000
ihari (India)	35,000,000
isayan (Philippines)	9,000,000
ulgarian	7,000,000
urmese	13,000,000
atalan (Spain)	6,000,000
hinese: including Mandarin, Cantonese and others	475,000,000
ushitic: including Somali (Ethiopia)	7,000,000
zech	8,500,000
ravidian: including Kanarese, Malayalam, Tamil, Telugu (India)	95,000,000
utch	15,000,000
nglish	265,000,000
thiopian: including Amharic	6,400,000
inno-Ugric: including Estonian, Finnish, Hungarian, Karelian, Lappish	21,500,000
lemish (Belgium)	5,000,000
rench	65,000,000
erman	100,000,000
reek	8,000,000
ujarati (India; Pakistan)	20,000,000
ausa (Central Africa)	9,000,000
indi (India; Pakistan)	180,000,000
ungarian	13,000,000
ndic: including Assamese, Bengali, Bihari, Gujarati, Hindi, Lahnda, Marathi, Oriya, Punjabi, Rajasthani, Sindhi, Sinhalese	415,000,000
ndonesian: including Balinese, Bisayan, Ilocano, Javanese, Madurese, Malay, Malagasy, Sundanese, Tagalog	105,000,000
Iranian: including Baluchi, Kurdish, Persian, Pushtu	26,500,000
Italian	50,000,000
Japanese	90,000,000
Javanese	41,000,000
Kanarese (India)	16,000,000
Korean	30,000,000
Lahnda (India; Pakistan)	13,000,000
Madurese (Indonesia)	6,500,000
Malay (Indonesia)	14,000,000
Malayalam (India)	12,000,000
Marathi (India)	25,000,000
Munda (India)	5,000,000
Oriya (India)	13,000,000
Persian	12,000,000
Polish	30,000,000
Portuguese	63,000,000
Punjabi (India; Pakistan)	22,000,000
Pushtu (Afghanistan; Pakistan)	8,000,000
Rajasthani (India; Pakistan)	17,000,000
Rumanian	16,000,000
Russian	200,000,000
Serbo-Croatian (Yugoslavia)	15,000,000
Siamese	16,000,000
Sinhalese (Ceylon)	5,500,000
panish	150,000,000
Sudanic: including Hausa (Central Africa)	75,000,000
Sundanese (Indonesia)	13,000,000
Swahili (E. Africa)	8,000,000
Swedish	7,000,000
Tagalog (Philippines)	5,000,000
Tamil (India)	27,000,000
Telugu (India)	33,000,000
Tibeto-Burman: including Tibetan and Burmese	20,000,000
Turkic: including Kazakh, Tartar, Turkish, Uzbek	45,000,000
Turkish	20,000,000
Uzbek (U.S.S.R.)	6,000,000
Yiddish	5,000,000

Universities—Ancient and Modern

Universities, in the modern sense of the term, sprang up in the 12th and 13th centuries in response to the resurgence of learning that preceded the Renaissance in Europe. Procedure at the early universities was informal, with students gathering at some place in a city to listen to a preeminent teacher. There were no campuses, buildings or endowments. Actually, the term "university" once meant a guild or corporation; there were, in the medieval period, "universities" of bootmakers, weavers, etc. Thus the university of learning was similar in organization to the guilds. The students filled the role of apprentices and the teachers were the masters.

The first European university was that of *Salerno* in the 9th century, when it was known as a school of medicine. By the 11th century, it had become one of the most famous medical schools of Europe.

University of Bologna. Originated about 1200 as student guilds for protection against the merchants and citizens of Bologna who had raised prices of food and lodging. It was famous for its legal scholars. The students were organized into two guilds and exercised a great deal of authority over the administration.

Other Italian universities famed in the Middle Ages included those at *Arezzo, Fer-*

rara, Florence, Modena, Naples, Padua, Pavia, Perugia, Siena and *Vicenza.*

University of Paris. Originated between 1150 and 1170 in a cathedral school on the Ile de la Cité, it was later moved to the left (south) bank of the Seine, although it remained under the authority of the chancellor of Notre Dame. It developed into the most famous continental center of learning of its day. Its four principal schools were theology, medicine, law and arts. By the 14th century, the university had some 40 colleges, of which the *Sorbonne* became the most celebrated.

The universities of Paris and Bologna had a marked influence in the subsequent creation of other university centers. About 1167–68 there was a migration of students from Paris to *Oxford* (founded in the 12th century) and about 1210, from Oxford to *Cambridge* (also founded in the 12th century).

Other famous universities of the Middle Ages include the *University of Toulouse* (1233), *Salamanca* (1243), *Seville* (1254), *Orléans* (1305), *Valladolid* (1346), *Prague* (1347), *Kraków* (1364), *Vienna* (1364), *Erfurt* (1379), *Heidelberg* (1385), *Cologne* (1388), *Leipzig* (1409), *Rostock* (1419) and *Louvain* (1426).

The Renaissance

The Renaissance gave fresh impetus to the universities of Europe. In France three of importance arose in the 15th century —the *University of Aix* (1409, Provence), the *University of Poitiers* (1431) and the *University of Caen* (1437).

Other French institutions of note that arose in this era were at *Bordeaux* (1441), *Valence* (1452), *Nantes* (1463) and *Bourges* (1465). New European universities were also founded at *Trier* (1450), *Freiburg* (1455), *Ingolstadt* (1459), *Basel* (1460), *Budapest* (1475), *Mainz* (1476), *Uppsala* (1477), *Tübingen* (1477), *Copenhagen* (1479), *Wittenberg* (1502), *Frankfurt on Oder* (1506) and *Coimbra* (1537).

St. Andrews, founded in 1411, was the first university in Scotland. Others were the *University of Glasgow* (1453) and the *University of Aberdeen* (1494). The *College of Edinburgh* was established in the post-Reformation period (1582). In Ireland, *Trinity College* was founded in Dublin in 1591.

Reformation and Post-Reformation

Until the Reformation, most of the institutions of higher learning in Europe were under the tutelage of the Catholic Church. After 1520, however, many established universities declared their independence of the Church. Cromwell's rule brought about new scholastic methods at both Oxford and Cambridge and the establishment of new colleges thoroughly imbued with Protestantism.

But the first Protestant university was that of *Marburg,* Germany, founded in 1527. Other Protestant universities were: *Königsberg* (1544); *Jena* (1558); *Helmstedt* (1575); *Altdorf* (1575); *Giessen* (1607); *Strasbourg* (1621); *Halle* (1693).

18th, 19th and 20th Centuries

Among the more famous institutions in this era was Göttingen (1736), whose school of history became celebrated throughout Europe. Others were: *Erlangen* (1743); *Berlin* (1809); *Lemberg* (Lwów) (1816); *Bonn* (1818); *Helsingfors* (1828); the *National University* at Athens (1837); *Bucharest* (1864); *Tokyo* (1877); *Sofia* (1888) and *Kyoto* (1897).

Among the more famous British universities established in the 19th and 20th centuries were the *University of London* (1828); *Manchester* (1851); the *Mason University College* in Birmingham, later *Birmingham University* (1900); *Liverpool* (1903); *Leeds* (1904); and the *University of Sheffield* (1905). The *University of Wales* (1893) is composed of the colleges of Aberystwyth, Bangor and Cardiff.

There are many large and important universities in the British Commonwealth. In Canada, the famous *McGill University* in Montreal was founded in 1821. Others are the *University of Toronto* (1827); *Queens University* at Kingston, Ont. (1841); *Laval University,* Quebec (1852); *Dalhousie,* Halifax (1818), and *Montreal University* (1878).

The early universities in India were patterned after London University rather than on the Oxford-Cambridge style, and were purely examining institutions. *Calcutta, Bombay* and *Madras* universities were founded in 1857 as examining bodies.

In Australia, the state plays an important role in the development of universities. The *University of Melbourne* (1853) has the largest enrollment. Among the others are *Adelaide* (1874); *Tasmania* (1890); *Queensland* (1909); *Sydney* (1850), and *Western Australia* (1911).

There are also many well-endowed universities in New Zealand, South Africa, and other parts of the Commonwealth.

By 1800, Russia had only three universities—*Vilna* (1578), *Dorpat* (1632) and *Moscow* (1755). Other institutions developed later were the *University of Kharkov* (1804); *Kazan* (1804); *Warsaw,* now Polish (originally established 1816, but closed 1832–69); *St. Petersburg* (1819); *St. Vladimir* in Kiev (1835); *Odessa* (1865) and *Tomsk,* in Siberia (1888). The building of universities after the Revolution of 1917 was spurred by the Soviet government.

In China, the growth of universities was hampered by the chaotic state of the government in the 1900's, the recurring civil wars and the conflict with Japan.

The United States

Universities in the United States marched in step with the progress of the nation. The early settlers brought a heritage of European culture which they planted in New England soil. The first university in the country was started as *Harvard College* in 1636, with an endowment totaling 800 pounds. Harvard was to become probably the most famous of the American universities.

The *College of William and Mary* (1693) was the second institution of higher learning established in the colonies. Others started during the colonial period (current names only) are: *Yale* (1701); *University of Pennsylvania* (1740); *Princeton* (1746); *Washington and Lee* (1749); *Columbia* (1754); *Brown* (1764); *Rutgers* (1766) and *Dartmouth* (1770).

After the Revolution of 1776, the state tax-supported university was established. The *University of Virginia* (1819) was a notable early example of this type.

Colleges for women grew up in the second quarter of the 19th century. Among these are: *Mt. Holyoke* (1837); *Elmira* (1855); *Vassar* (1861); *Wells* (1868); *Hunter* (1870); *Wellesley* (1870); *Smith* (1871) and *Bryn Mawr* (1880).

In the latter part of the 19th century, universities established by private endowments arose. Typical of these are: *Cornell* (1865), which is also a land-grant institution; *Johns Hopkins* (1876); *Stanford* (1885) and the *University of Chicago* (1890).

Libraries of the World

Europe and Asia

Among the great libraries of the world, the *British Museum* remains in the first rank with more than 6,000,000 printed volumes and manuscripts. It contains such outstanding treasures as the *Codex Alexandrinus* and the *Codex Sinaiticus* of the Bible, the best collection of Greek papyri from Egypt, and vast collections of original historical manuscripts of incalculable value. Some 150,000 volumes were destroyed in air raids during World War II, but many were replaced later.

One of the finest libraries in the world is the *Bibliothèque Nationale* in Paris, which has approximately 6,000,000 volumes, 150,000 manuscripts, 450,000 medals and coins, and 5,000,000 prints and engravings.

The *State Library* in Berlin, founded in 1659–61, was combined in 1947 with the library of the University of Berlin to form a new institution known as the *Öffentliche Wissenschaftliche Bibliothek*. Prior to World War II, the State Library had 2,850,000 volumes; the new combined library had only 1,500,000. The *State Library* at Munich also suffered extensive war losses, with some 500,000 volumes destroyed; it now contains about 2,000,000. Estimates have placed the war losses of all German libraries at between 20 and 25 million volumes.

The *Nationalbibliothek* in Vienna has about 1,450,000 volumes and a large collection of papyri.

While not as large as some of the European state libraries, the *Biblioteca Apostolica Vaticana* in Rome has many priceless old manuscripts bequeathed to the Vatican over the centuries, including the *Codex Vaticanus*.

Three of the more important Italian libraries are the *Biblioteca Nazionale* in Naples, with about 1,400,000 volumes; the *Biblioteca Nazionale Centrale* in Florence, with 3,450,000 volumes, manuscripts and pamphlets and the *Biblioteca Nazionale Centrale* in Rome, with approximately 1,940,000 volumes.

Other large European libraries are the *Bibliothèque Royale* in Brussels (2,000,000 volumes), the *Biblioteca Nacional* in Madrid (1,500,000), the *University Library* at Amsterdam (more than 1,500,000) and the *Royal Library* in Stockholm (800,000). The *Lenin State Library* in Moscow is said to contain 15,000,000 volumes (a figure that undoubtedly includes duplications), besides many collections of valuable historical documents. In Leningrad, the *Public Library* claims 10,000,000 volumes, and the *Libraries of the Academy of Sciences* some 8,000,000. There are said to be 300,000 libraries in all parts of the U.S.S.R.

In the Far East, the most extensive libraries are found in Japan, although war damage in 1944–45 was severe. In Tokyo the *National Diet Library* (formerly the *Imperial Library*) was organized in 1948 as a deposit center. With its various branches, it contains an estimated 3,500,000 volumes. The *University Library* at Kyoto has about 1,700,000.

The United States and Canada

The earliest libraries in the colonial era were privately owned, although in 1731 Benjamin Franklin projected the first subscription library in Philadelphia. Endowments helped to set up many of the large

libraries, although many of these institutions are now receiving state or municipal support.

The largest library in the United States is the *Library of Congress,* established in 1800 by Congress. In 1955, it contained more than 10,500,000 books and pamphlets, and total collections of over 34,000,000. It extends services to members of Congress and other government departments, and also offers excellent facilities for persons engaged in scholarly research.

The *New York Public Library,* with some 6,000,000 volumes in 1955, is the largest public library in the U. S.

The *American Library Directory* for 1954 listed 12,478 libraries in the U. S., including 6,925 public (with 3,106 branches), 1,374 college and university, 1,923 special and 2,256 other types.

The growth of libraries attached to colleges and universities in the United States has been phenomenal, and some of the university libraries are among the largest in the country. Those with more than 1,000,000 volumes each in 1954 were as follows: Harvard, 5,800,000; Yale, 4,216,000; University of California, including branches, 3,234,000; Columbia, 2,932,000; University of Illinois, 2,570,000; University of Chicago, 1,884,000; University of Minnesota, 1,688,000; Cornell, 1,613,000; University of Michigan, 1,551,000; University of Pennsylvania, 1,327,000; Princeton, 1,244,000; Stanford, 1,214,000; Duke, 1,125,000; Northwestern, 1,112,000; University of Texas, 1,051,000; Ohio State, 1,012,000.

In Canada, the most important public library is that of Toronto, which has more than 850,000 volumes. Large Canadian university libraries include those at Queens (240,000), Toronto (565,000), McGill (672,000), and Laval (380,000). The *American Library Directory* for 1954 listed a total of 719 libraries in Canada, including 683 public.

Museums of the World

(*See also* Seven Wonders of the World p. 668.)

The modern museum originated during the Renaissance, when the revival of interest in the arts and classical antiquity led princes, nobles and humanists to amass specimens of historical value and to house their collections in special buildings or galleries.

Art Museums

The British Museum, London, contains some of the most famous historical objects of the world, including the Elgin Marbles and the Rosetta Stone.

Victoria and Albert Museum, London, whose primary object is to furnish examples to illustrate the history of art, emphasizes architecture and sculpture, ceramics, engraving, book production, paintings, textiles, etc. The library is devoted principally to fine and applied arts of all countries.

National Gallery, London, contains a great number of old Masters, including paintings by Da Vinci, Michelangelo, Tintoretto, Mantegna, Titian, Bellini, Jan van Eyck, Rubens, Rembrandt, Holbein, Constable and Turner.

Tate Gallery, London, established as part of the National Gallery, was badly damaged during air raids of World War II, but was completely restored by 1949.

Wallace Collection, London, has many *objets d'art* and curios of French origin, and first-rank canvases and etchings of Italian, Spanish, Flemish, Dutch and English artists.

In France, the most famous gallery is the *Louvre* in Paris, noted for the magnificence of its architecture as well as for its art collection, which is the largest in the world. Other Parisian museums of importance are *Cluny, Rodin, Guimet,* and *Carnavalet.*

Among the magnificent Italian museums, the *National Museum* at Naples contains one of the best arranged and classified collections. The *Uffizi Gallery* in Florence, founded by the Medicis, has one of the world's largest and best collections of Italian art. Other galleries in Florence are the *Gallery of Modern Art* (*Pitti Palace*) and the *National Museum* (*Bargello*). Rome has numerous museums, including several in the Vatican.

In Berlin, the *National Gallery* was damaged during World War II.

The *Royal Museum of Fine Arts* in Brussels has a fine collection of French, Flemish and Dutch masters and houses many canvases by Rubens, Van Dyck, Jordaens, Rembrandt, Frans Hals and Jan Steen.

The *State Museum* in Amsterdam contains superb works by Rembrandt, Vermeer and others.

Among the notable art museums in other countries are the world-famous *Museo del Prado* in Madrid; the *Tretyakov Gallery* and the *Pushkin State Museum of Fine Arts* in Moscow; the *Hermitage State Museum* in Leningrad; and the *National Museum* in Tokyo, famed for its many Oriental paintings and examples of Oriental workmanship in lacquer, jade, ivory and metal.

Science Museums

The *Ashmolean Museum,* oldest in Great Britain, was founded in 1683 by Oxford

niversity and houses a collection of cheological and classical rarities.

Science Museum of London has exhibits scientific instruments and appliances nich review the progress of science and e history of invention. Other London useums of science are the *Natural His-ry* (*British Museum*), the *Imperial War useum* (exhibits of both World Wars) id the *Geological Museum*.

The *Liverpool Museums* contain valuable llections of natural history and antiq-ties and are divided into departments zoology, botany, geology, archeology and hnology. The buildings were almost com-etely destroyed during World War II, al-ough most of the exhibits were saved.

The *Manchester Museum* serves as both municipal and a university museum. he *Bristol Museum* contains departments geology, zoology, botany, archeology and ristol antiquities. The *National Mu-eum of Wales* at Cardiff has departments art, archeology, botany, geology and ology.

In Edinburgh, Scotland, are the famed oyal *Scottish Museum*, which has col-ctions in art, ethnography, natural his-ory, technology and archeology; and the *ational Museum of Antiquities of Scot-nd*, noted for its coin and manuscript ollections.

The *National Museum* in Dublin and the *unicipal Museum* in Belfast have impor-ant science collections.

Notable institutions of continental Eu-ope include the *Natural History Museum* n Paris, the *Museum of Oceanography* in Monaco, the *Natural History Museum* in isbon, the *State Museum of Geology nd Mineralogy* in Leyden (Netherlands), he *Museum of Natural History* in Stock-holm, the *Natural History Museum* in Vienna, the *Hungarian National Museum* in Budapest, the *National Museum* in Prague, and the various science museums in Berne, Geneva, Zurich and Neuchâtel, Switzer-land. Most larger cities of the U.S.S.R. have science museums of varying sizes, some specializing in local exhibits of natural history.

Famous science museums in Germany prior to World War II included the various sections of the *Staatliche Museen* in Ber-lin (re-established after the war) and the museum of ethnography in Hamburg.

In Calcutta is the *Indian Museum*, out-standing for its marine fauna and verte-brate fossils, and in Bombay the *Victoria and Albert Museum*.

In Australia are the *Queensland Mu-seum* and the *Botanic Museum* in Bris-bane, the *South Australian Museum* in Adelaide, and the *Australian Museum* in Sydney.

New Zealand contains the *Canterbury Museum*, Christchurch, rich in local fauna, flora and geological items, and a Maori and Polynesian ethnological collection.

In Africa, the *South African Museum*, Capetown, holds general and local history collections and others illustrating anthro-pology, ethnology and archeology. The *Durban Museum* contains much anthro-pological material. In Cairo are the notable collections of the *Egyptian Museum*.

Other museums of note include the *Archeological Museums* at Istanbul, the *Tokyo Science Museum*, the *National Museum of Natural History* in Santiago (Chile), the *National Museum* at Rio de Janeiro, and the *Argentine National Mu-seum of Natural Sciences* at Buenos Aires.

Zoological Gardens

North America has more than 30 major oos, in the United States, Canada and Mexico. The *Quebec Zoological Society's* collection is made up of Canadian spe-cies; Toronto has many exotic species.

The first zoological garden in the United States was established in Philadelphia in 1874. Since that time nearly every large city in the country has acquired a zoo. Among the largest are the celebrated *Bronx Zoo* and the *Central Park Zoo* in New York, the *Lincoln Park Zoo* and the *Brookfield Zoo* in Chicago, and those in St. Louis, Cincinnati, Detroit, Kansas City and San Diego. The *National Zoo-logical Park* in Washington, D. C., in a beautiful setting of hills, woods and streams, was established in 1890 by an act of Congress. Some of the U. S. zoos ex-hibit their collections in open-air, barless pits; the Brookfield Zoo is an example.

In Europe, zoological gardens have long been popular public institutions. The *Jar-din d'Acclimatation*, in the Bois de Bou-logne, Paris, was established in 1858, and a model zoo at Vincennes was added in 1937 for the Paris Exposition.

Germany had about 20 zoological gar-dens, many of which were developed in the peacetime years between World Wars I and II. Large zoos were located in Berlin and Frankfurt am Main. In Munich, the animals were grouped according to the continent of their origin. Others were es-tablished at Dresden, Leipzig and Cologne. At Stellingen, the *Hagenbeck Garden* be-came an outstanding show place and dis-tributing center for animals. Smaller col-lections were established at Düsseldorf, Elberfeld and Hanover. Several German zoos, notably that at Berlin, were de-stroyed during World War II.

The *Schönbrunn* at Vienna is one of the oldest zoos in Europe. The Budapest zoological gardens house a fine collection of European birds. At Antwerp, the *Royal Zoological Society* founded a large menagerie in 1843. It was seriously damaged by German bombs during World War II.

In the British Isles, the outstanding collection is in the garden of the *London Zoological Society* in Regent's Park. Although this zoo received a number of direct bomb hits in 1940–41 and again in 1944, it remained open throughout World War II; visitors during this period numbered 6,500,000. Manchester and Clifton have smaller gardens, and the one at Edinburgh is famous for its collection of penguins. The *Dublin Zoo* is noted for its lions, many of which were born there.

The Amsterdam zoo, with its East Indian collection and its aquarium, and the Rotterdam gardens are the two best known in the Netherlands. Built on a high elevation, the *Skansen Zoo* in Stockholm exhibits north European specimens. The most important gardens in the U.S.S.R. are found in Moscow, where northern as well as exotic species are collected. The zoo at Rome has part of its collection confined in barless pits. At Lisbon there is a small zoological garden, and in Madrid a part of the original royal menagerie. A new zoo notable for its landscaping was opened at Naples, Italy, in 1952.

Famous Structures

(*See also* Seven Wonders of the World, p. 668.)

Ancient

The Great Sphinx of Egypt, one of the wonders of ancient Egyptian architecture, adjoins the pyramids of Giza and has a length of 189 ft. It was built in the 4th dynasty and was used as a temple.

Other Egyptian buildings of note include the *Temples of Karnak* and *Edfu* and the *Tombs at Beni Hassan.*

The Parthenon of Greece, built on the Acropolis in Athens, was the chief temple to the goddess Athena. It was believed to have been completed by 438 B.C. The present temple remained intact until the 5th century A.D. Today, though the Parthenon is in ruins, its majestic proportions are still discernible.

Other great structures of ancient Greece were the *Temples at Paestum* (about 540 and 420 B.C.); the *Temple of Poseidon* (about 460 B.C.); the *Temple of Apollo* at Corinth (about 540 B.C.); the *Temple of Apollo* at Bassae (about 450–420 B.C.); the famous *Erechtheum* atop the Acropolis (about 421–405 B.C.); the *Temple of Athena Nikê* at Athens (about 426 B.C.); the *Olympieum* at Athens (174 B.C.–A.D. 131); the *Athenian Treasury* at Delphi (about 515 B.C.); the *Propylaea* of the Acropolis at Athens (437–432 B.C.); the *Theater of Dionysus* at Athens (about 350–325 B.C.); the *"House of Cleopatra"* at Delos (138 B.C.) and the *Theater* at Epidaurus (about 325 B.C.).

The Colosseum (Flavian Amphitheater) of Rome, the largest and most famous of the Roman amphitheaters, was opened for use A.D. 80. Elliptical in shape, it consisted of three stories and an upper gallery, rebuilt in stone in its present form in the third century A.D. Its seats rise in tiers, which in turn are buttressed by concrete vaults and stone piers. It could seat between 40,000 and 50,000 spectators. The Colosseum was principally used for gladiatorial combat.

The Pantheon at Rome, begun by Agrippa in 27 B.C. as a temple, was rebuilt in its present circular form by Hadrian (A.D. 110–25). Literally the Pantheon was intended as a temple of "all the gods." It is remarkable for its perfect preservation today, and it has served continuously for 20 centuries as a place of worship.

Famous Roman arches includes the *Arch of Constantine* (about A.D. 315) and the *Arch of Titus* (about A.D. 80).

Later European

St. Mark's Cathedral in Venice (1063–67), one of the great examples of Byzantine architecture, was begun in the 9th century. Partly destroyed by fire in 976, it was later rebuilt as a Byzantine edifice.

Other famous Byzantine examples of architecture are *St. Sophia* in Constantinople (A.D. 532–37); *San Vitale* in Ravenna (542); *St. Paul's Outside the Walls,* Rome (5th century); the *Kremlin* baptism and marriage church, Moscow (begun in 1397); and *St. Lorenzo Outside the Walls,* Rome, begun in 588.

The Cathedral Group at Pisa (1067–1173), one of the most celebrated groups of structures built in Romanesque style, consists of the cathedral, the cathedral's baptistery, and the *Leaning Tower.* This trio forms a group by itself in the northwest corner of the city. The cathedral and baptistery are built in black and white marble. The campanile (Leaning Tower) is 179 ft. high and leans more than 16 feet out of the perpendicular. There is little reason to believe that the architects intended to have the tower lean.

Other examples of Romanesque architecture include the *Vézelay Abbey* in France (1130); the *Church of Notre-Dame-*

-*Port* at Clermont-Ferrand in France 00); the *Church of San Zeno* (begun 1138) at Verona, and *Durham Cathedral* England.

The Alhambra (1248–1354), located in anada, Spain, is universally esteemed as e of the great masterpieces of Moham-dan architecture. Designed as a palace d fortress for the Moorish monarchs of anada, it is surrounded by a heavily tified wall more than a mile in perim-r. The location of the Alhambra in the rra Nevada provides a magnificent set-g for this jewel of Moorish Spain.

The *Tower of London* is a group of build-gs and towers covering 13 acres along e north bank of the Thames. The central nite *Tower*, begun in 1078 during the gn of William the Conqueror, was orig-ally a fortress and royal residence, but s later used as a prison. The *Bloody wer* is associated with Anne Boleyn and ner notables.

Westminster Abbey, in London, was be-n in 1045 and completed in 1065. It was built and enlarged in 1245–50.

Notre-Dame de Paris (begun in 1163), e of the great examples of Gothic archi-cture, is a twin-towered church with a eeple over the crossing and immense fly-g buttresses supporting the masonry at e rear of the church.

Other famous Gothic structures are *hartres Cathedral* (12th century); *Sainte hapelle*, Paris (1246–48); *Laon Cathedral*, rance (1160–1205); *Rheims Cathedral* bout 1210–50; rebuilt after its almost mplete destruction in World War I); ouen *Cathedral* (13th–16th centuries); miens *Cathedral* (1218–69); *Beauvais thedral* (begun 1247); *Salisbury Cathe-ral* (1220–60); *York Minster* or the *Cathe-ral of St. Peter* (begun in the 7th cen-ury); *Milan Cathedral* (begun 1386); and ologne *Cathedral* (13th–19th centuries; adly damaged in World War II).

The Duomo (cathedral) in Florence was ounded in 1298, completed by Brunelleschi nd consecrated in 1436. The oval-shaped ome dominates the entire structure.

The *Vatican* is a group of buildings in ome comprising the official residence of he Pope. The *Basilica of St. Peter*, the rgest church in the Christian world, was egun in 1450. The *Sistine Chapel*, begun n 1473, is noted for the art masterpieces f Michelangelo, Botticelli and others. The *asilica of the Savior* (known as *St. John ateran*) is the first-ranking Catholic hurch in the world, for it is the cathe-ral of the Pope.

Other examples of Renaissance archi-ecture are the *Palazzo Vecchio*, the *Pa-zzo Pitti* and the *Palazzo Strozzi* in Flor-nce; the *Farnese Palace* in Rome; *Palazzo rimani* (completed about 1550) in Venice; the *Escorial* (1563–93) near Madrid; the *Town Hall* of Seville (1527–32); the *Louvre*, Paris; the *Château* at Blois, France; *St. Paul's Cathedral*, London (1675–1710; badly damaged in World War II); the *Ecole Militaire*, Paris (1752); the *Pazzi Chapel*, Florence, designed by Brunelleschi (1429); the Palace of *Fontainebleau* and the *Château de Chambord* in France.

The *Palace of Versailles*, containing the famous Hall of Mirrors, was built during the reign of Louis XIV and served as the royal palace until 1793.

Outstanding European buildings of the 18th and 19th centuries are the *Superga* at Turin, the *Hôtel-Dieu* in Lyon, the *Belvedere Palace* at Vienna, the *Royal Palace* of Stockholm, the *Opera House* of Paris (1863–75); the *Bank of England*, the *British Museum*, the *University of London* and the *Houses of Parliament*, all in London; the *Panthéon*, the *Church of the Madeleine*, the *Bourse* and the *Palais de Justice* in Paris.

The *Eiffel Tower*, in Paris, was built for the Exposition of 1889 by Alexandre Eiffel. It is 984 ft. high.

Asiatic and African

The *Taj Mahal* (1632–50), at Agra, India, built by Shah Jahan as a tomb for his wife, is considered by some as the most perfect example of the Mogul style and by others as the most beautiful building in the world. Four slim white minarets flank the building, which is topped by a white dome; the entire structure is of marble.

Other examples of Indian architecture are the temples at Benares and Tanjore.

Famed Mohammedan edifices are the *Dome of the Rock* or *Mosque of Omar*, Jerusalem (A.D. 691); the *Citadel* (1166), and the *Tombs of the Mamelukes* (15th century), in Cairo; the *Tomb of Humayun* in Delhi; the *Blue Mosque* (1468) at Tabriz and the *Tamerlane Mausoleum* at Samarkand.

Angkor Vat, outside the city of Angkor Thom, Cambodia, is one of the most beautiful examples of Cambodian or Khmer architecture. The sanctuary was built during the 12th century.

Great Wall of China (228 B.C.?), designed specifically as a defense against nomadic tribes, has numerous large watch towers which could be called buildings. It was erected by Emperor Ch'in Shih Huang Ti and is 1,400 miles long. Built mainly of earth and stone, it varies in height between 18 and 30 feet.

Typical of Chinese architecture are the pagodas or temple towers. Among some of the better known pagodas are the *Great Pagoda of the Wild Geese* at Sian (founded in 652); *Nan t'a* (11th century) at Fang Shan; the *Pagoda of Sung Yueh Ssu* (A.D. 523) at Sung Shan, Honan.

Other well-known Chinese buildings are the *Drum Tower* (1273), the *Three Great Halls* in the Purple Forbidden City (1627), *Buddha's Perfume Tower* (19th century), the *Porcelain Pagoda* and the *Summer Palace*, all at Peiping.

United States

Rockefeller Center, from 5th to 6th Aves. and from 48th to 51st Sts. in New York City, occupies 12½ acres and contains 15 buildings, the highest being the 70-story *RCA Building*.

Grant's Tomb, at Riverside Dr. near 122nd St. in New York City, contains the bodies of Ulysses S. Grant and his wife. It was completed in 1897.

The Cathedral of St. John the Divine, at Cathedral Pkwy. and Amsterdam Ave. in New York City, was begun in 1892 but is not yet completed. When completed, it will be the largest Gothic cathedral in the world: 601 ft. long, 146 ft. wide at the nave, 320 ft. wide at the transept.

St. Patrick's Cathedral, at 5th Ave. and 50th St. in New York City, has a seating capacity of 4,500. The nave was opened in 1877; the cathedral was dedicated in 1879.

Lincoln Memorial, in Washington, D. C., was dedicated in 1922. It has 36 columns (the number of states in 1865), each 44 ft. high. The main chamber contains a statue of Lincoln.

Independence Hall, in Philadelphia, was the scene of the signing of the Declaration of Independence and the drawing up of the U. S. Constitution. It was built between 1732–41 as the State House. The Liberty Bell is on the first floor.

Great Dams of the World

Reservoir capacity, thousands of acre feet	Name	Location	Maximum height, feet	Date completed
31,142	Hoover	Colorado River, Ariz.-Nev.	726	1936
24,500	Garrison	Missouri River, N. Dak.	210	1954
19,600	Oahe	Missouri River, S. Dak.	230	*
19,412	Fort Peck	Missouri River, Mont.	250	1940
9,517	Grand Coulee	Columbia River, Wash.	550	1942
6,200	Fort Randall	Missouri River, S. Dak.	150	1954
6,100	Kentucky	Tennessee River, Ky.	160	1944
6,089	Wolf Creek	Cumberland River, Ky.	242	1951
6,000	Hirakud	Mahandi River, India	180	*
5,825	Denison	Red River, Okla.-Tex.	165	1944
4,500	Shasta	Sacramento River, Calif.	602	1945
4,407	Gatun	Chagres River, Panama Canal Zone	115	1912
4,060	Aswan	Nile River, Egypt	174	1934
3,500	Hungry Horse	Flathead, S. Fk., Mont.	520	1953
3,263	Lázaro Cárdenas (El Palmito)	Nazas River, Mex.	295	1948
3,000	Salt Springs	North Fork, Mokelumne River, Calif.	345	1931
2,567	Norris	Clinch River, Tenn.	265	1936
2,432	Alvaro Obregón (Oviachic)	Yaqui River, Sonora, Mex.	187	1953
2,300	Saluda	Saluda River, S. C.	208	1930
2,219	Elephant Butte	Rio Grande, N. Mex.	301	1916
2,150	Mettur	Cauvery River, India	214	1934
2,092	Center Hill	Caney Fork River, Tenn.	240	1950
2,000	Hume	Murray River, Australia	180	1936
2,000	Kingsley	North Platte River, Nebr.	162	1941
1,997	Osage (Bagnell)	Osage River, Mo.	148	1931
1,983	Norfolk	North Fork River, Ark.	230	1944
1,980	Chelsea	Gatineau River, Canada	100	1927
1,975	Pensacola	Grand River, Okla.	152	1940
1,934	Marshall Ford (Mansfield)	Colorado River, Tex.	270	1941
1,820	Davis	Colorado River, Ariz.-Nev.	200	1949
1,706	Dale Hollow	Obey River, Tenn.-Ky.	183	1943
1,704	American Falls	Snake River, Idaho-Wyo.	92	1927
1,702	El Azucar	San Juan River, Mexico	142	1943
1,565	Cherokee	Holston River, Tenn.	212	1942
1,560	Sardis	Little Tallahatchie River, Miss.	117	1940
1,540	Douglas	French Broad River, Tenn.	160	1943
1,450	Fontana	Little Tennessee River, N. C.	470	1944
1,400	Roosevelt	Salt River, Ariz.	280	1911

* Under construction in 1955.

Notable Modern Bridges

th of nel feet	Name	Location	Type*	Year completed
200	GOLDEN GATE	San Francisco	S	1937
500	GEORGE WASHINGTON	New York City	S	1931
800	TACOMA NARROWS	Tacoma, Wash.	S	1950
310	TRANSBAY	San Francisco	S	1936
300	BRONX-WHITESTONE	New York City	S	1939
150	DELAWARE MEMORIAL	Near Wilmington, Del.	S	1951
850	AMBASSADOR	Detroit, Mich.	S	1929
800	QUEBEC	Near Quebec, Canada	C	1917
750	DELAWARE RIVER	Philadelphia, Pa.	S	1926
700	FORTH	Firth of Forth, Scotland	C	1889
652	KILL VAN KULL	Bayonne, N. J.	SA	1931
650	SYDNEY HARBOR	Sydney, Australia	SA	1932
632	BEAR MOUNTAIN	Peekskill, N. Y.	S	1924
600	CHESAPEAKE BAY	Near Annapolis, Md.	S	1952
600	WILLIAMSBURG	New York City	S	1903
595.5	BROOKLYN	New York City	S	1883
550	LIONS GATE	Vancouver, Canada	S	1939
500	MID-HUDSON	Poughkeepsie, N. Y.	S	1930
500	HOWRAH	Calcutta, India	C	1943
470	MANHATTAN	New York City	S	1909
400	TRANSBAY	Oakland, Calif.	C	1936
380	TRIBOROUGH	New York City	S	1936
240	COLOGNE-RODENKIRCHEN	Germany	S	1954
207	ST. JOHNS	Portland, Oreg.	S	1931
200	LONGVIEW	Longview, Wash.	C	1930
200	MT. HOPE	Near Bristol, R. I.	S	1929
182	QUEENSBORO	New York City	C	1909
114	FLORIANÓPOLIS	Florianópolis, Brazil	S	1926
100	CARQUINEZ STRAIT	Near San Francisco	C	1927
097	MONTREAL HARBOR	Montreal, Canada	C	1930
080	BIRCHENOUGH	Southern Rhodesia	SA	1935
080	DEER ISLE	Deer Isle, Me.	S	1939
057	CINCINNATI	Cincinnati, Ohio	S	1867
050	OTTO BEIT	Southern Rhodesia	S	1939
050	COOPER RIVER	Charleston, S. C.	C	1929
042	NAGASAKI	Japan	SA	1955
034	COLOGNE-MÜLHEIM	Germany	S	1951
010	WHEELING	Wheeling, W. Va.	S	1849
977.5	HELL GATE	New York City	SA	1917
963	EAST ST. LOUIS	East St. Louis, Ill.	C	1950
950	RAINBOW	Niagara Falls, N. Y.	SA	1941
949	GRAND MERE	Quebec, Canada	S	1928
930	PEACE RIVER	Alaska Highway	S	1943
924	STORY	Queensland, Australia	C	1940
875	NATCHEZ	Natchez, Miss.	C	1940
871	BLUE WATER	Port Huron, Mich.	C	1938
866	SANDO	Sando, Sweden	CA	1943
845	DUBUQUE	Dubuque, Iowa	CT	1942
800	THOUSAND ISLANDS	Alexandria Bay, N. Y.	S	1938
800	WALDO-HANCOCK	Bucksport, Maine	S	1931
800	RIP VAN WINKLE	Catskill, N. Y.	C	1935
800	HENRY HUDSON	New York City	SA	1936
790	HUEY P. LONG	Near New Orleans, La.	C	1935

* C—Cantilever. S—Suspension. SA—Steel Arch. CA—Concrete Arch. CT—Continuous Truss.

Area and Population by Country

Country	Area, sq. mi.	Population	Year[1]
Afghanistan	270,000	13,000,000	1953E
Albania	11,100	1,250,000	1953E
Argentina	1,079,965	18,919,000	1955E
Australia	2,974,581	9,090,738	1954E
Austria	32,388	6,969,000	1954E
Belgium	11,783	8,840,704	1954E
Bhutan	18,000	300,000	1954E
Bolivia	416,040	3,162,000	1954E
Brazil	3,291,416	57,226,000	1954E
Bulgaria	42,741	7,450,000	1953E
Burma	261,749	19,242,000	1954E
Cambodia	53,668	3,860,000	1953E
Canada	3,619,616	15,482,000	1955E
Ceylon	25,332	8,385,000	1954E
Chile	286,323	6,238,000	1954E
China[3]	3,858,900	590,194,715	1953C
Colombia	439,714	12,381,000	1954E
Costa Rica	19,238	932,000	1954E
Cuba	44,217	5,829,029	1953C
Czechoslovakia	49,336	12,948,000	1954E
Denmark	16,575	4,423,800	1955E
Dominican Republic	19,327	2,347,000	1954E
Ecuador	104,510	3,567,000	1954E
Egypt	383,000	22,469,000	1954E
El Salvador	13,176	2,122,000	1954E
Estonia[4]	18,357	1,126,415	1940E
Ethiopia[10]	350,000	15,000,000	1951E
Finland	130,160	4,168,000	1953E
France	212,741	42,774,445	1954C
Germany (Dem. Rep.)	41,700	17,600,000	1954E
Germany (Fed. Rep.)	94,634	49,147,700	1954E
Greece[5]	51,182	7,900,000	1954E
Guatemala	45,452	3,149,000	1954E
Haiti	10,748	3,400,000	1954E
Honduras	43,277	1,608,000	1954E
Hungary	35,893	9,600,000	1953E
Iceland	39,709	155,200	1954E
India	1,174,116[7]	356,691,760[7]	1951C
Indonesia	583,479	78,389,000	1954E
Iran	634,413	20,662,000	1954E
Iraq	116,600	5,100,000	1950E
Ireland	26,601	2,933,000	1954E
Israel	8,050	1,717,814	1954E
Italy	116,048	47,665,000	1954E
Japan	146,690	88,200,000	1954E
Jordan	37,110[9]	1,332,989[9]	1953E
Korea	85,225	30,000,000	1951E
Laos	91,428	1,260,000	1953E
Latvia[4]	25,395	2,100,000	1950E
Lebanon	3,475	1,450,000	1954E
Liberia	40,000	1,500,000	1953E
Libya	679,340	1,091,830	1954E
Liechtenstein	65	13,757	1950C
Lithuania[4]	22,958	3,000,000	1950E
Luxemburg	1,010	308,000	1954E
Maldive Islands	115	93,000	... E
Mexico	758,061	28,849,465	1954E
Monaco	0.59	20,202	1951C
Mongolian People's Rep.	606,000	910,000	1953E
Nepal	54,000	8,596,000	1953E
Netherlands	12,868	10,680,023	1955E
New Zealand	103,416	2,130,927	1955E
Nicaragua	57,143	1,202,000	1954E
Norway	125,193	3,408,000	1954E
Pakistan	364,737	75,635,496	1951C
Panamá	28,575	911,400	1955E
Paraguay	154,165	1,530,000	1954E
Peru	482,133	9,295,000	1954E
Philippines	114,400	21,848,800	1955E
Poland	119,703	26,780,000	1954E
Portugal	35,413	8,693,000	1954E
Rumania	91,654	16,500,000	1953E
San Marino	38	13,500	1953E
Saudi Arabia	597,000	7,000,000	1952E
Spain	194,945	28,863,182	1954E
Sweden	173,341	7,234,664	1954E
Switzerland	15,940	4,950,000	1954E
Syria	73,587	3,670,000	1954E
Thailand	198,247	19,925,000	1954E
Tibet	469,294	1,273,969	1953C
Turkey	295,185	22,949,000	1954E
Un. of So. Africa[6]	472,550	13,393,000	1954E
U.S.S.R.	8,473,444	214,500,000	1954E
United Kingdom	93,371	50,887,000	1954E
United States	2,974,726	150,697,361	1950C
Uruguay	72,172	2,525,000	1953E
Vatican City	108.7[8]	947	1952E
Venezuela	352,143	5,858,000	1954E
Viêt-Nam (Nat'l State)	64,451	12,000,000	1948E
Viêt-Nam (Dem. Rep.)	62,808	10,663,000	1948E
Yemen	31,000	4,500,000	1953E
Yugoslavia	99,181	17,288,000	1954E

[1] E—Estimated; C—Census. [2] Preliminary figure. [3] Including Formosa, Manchuria, Tibet; excluding Outer Mongolia. [4] Actually Russian S.S.R., but still recognized by U. S. as independent country. [5] Including Dodecanese. [6] Excluding South-West Africa. [7] Excluding Kashmir. [8] Acres. [9] Including Arab Palestine. [10] Excluding Eritrea.

National Holidays of American Countries

Source: U. S. Department of State.

Argentina: Independence Day, July 9.
Bolivia: Independence Day, Aug. 6.
Brazil: Independence Day, Sept. 7.
Canada: Dominion Day, July 1.
Chile: Independence Day, Sept. 18.
Colombia: Independence Day, July 20.
Costa Rica: Independence Day, Sept. 15.
Cuba: Independence Day, May 20.
Dominican Republic: Independence Day, Feb. 27.
Ecuador: Independence Day, Aug. 10.
El Salvador: Independence Day, Sept. 15.
Guatemala: Independence Day, Sept. 15.
Haiti: Independence Day, Jan. 1.
Honduras: Independence Day, Sept. 15.
Mexico: Independence Day, Sept. 16.
Nicaragua: Independence Day, Sept. 15.
Panamá: Independence Day, Nov. 3.
Paraguay: Independence Day, May 14.
Peru: Independence Day, July 28.
Uruguay: Independence Day, Aug. 25.
Venezuela: Independence Day, July 5.

Largest Cities of the World

xact rating of the cities of the world according to size is impossible because of the diversity of the years for ch census or estimated population figures have been issued. Therefore, the rating shown in this table must onsidered only approximate.)

City and country	Population	Year*	City and country	Population	Year*
London (Greater), England	8,346,137	1951C	11. Bombay, India	2,839,270	1951C
New York, N. Y., U.S.A.	7,891,957	1950C	12. Jakarta, Indonesia	2,800,000	1951E
Shanghai, China	6,204,417	1953C	13. Peking, China	2,768,149	1953C
Tokyo, Japan	5,385,071	1950C	14. Tientsin, China	2,693,831	1953C
Moscow, U.S.S.R.	4,137,018	1939C	15. Rio de Janeiro, Brazil	2,604,018	1953E
Chicago, Ill., U.S.A.	3,620,962	1950C	16. Calcutta, India	2,548,677	1951C
Buenos Aires, Argentina	3,555,000	1955E	17. São Paulo, Brazil	2,500,000	1953E
Berlin, Germany	3,369,000	1954E	18. Mexico City, Mexico	2,234,795	1950C
Leningrad, U.S.S.R.	3,191,304	1939C	19. Los Angeles, Calif., U.S.A.	2,104,663	1953C‡
Paris, France	2,850,189	1954C	20. Cairo, Egypt	2,100,506	1947C

Other Large Foreign Cities (over 512,000)

City and country	Population	Year*	City and country	Population	Year*
edabad, India	788,333	1951C	Lima, Peru	926,400	1952E
andria, Egypt	925,081	1947C	Lisbon, Portugal	790,434	1950C
terdam, Netherlands	863,802	1955E	Liverpool, England	789,532	1951C
verp, Belgium	603,625	1954E	Łódz, Poland	655,000	1954E
ens, Greece	559,250	1951C	Madras, India	1,416,056	1951C
u, U.S.S.R.	809,347	1939C	Madrid, Spain	1,756,611	1954E
dung, Indonesia	659,213	1951E	Manchester, England	703,175	1951C
galore, India	778,977	1951C	Manila, Philippines	1,158,260	1952E
gkok, Thailand	827,290	1947C	Marseilles, France	661,492	1954C
celona, Spain	1,369,684	1954E	Melbourne, Australia	1,524,062	1954C†
ningham, England	1,112,340	1951C	Milan, Italy	1,264,402	1951C
otá, Colombia	638,562	1951C	Montevideo, Uruguay	850,000	1948E
ssels, Belgium	976,443	1954E	Montreal, Canada	1,021,520	1951C
harest, Rumania	1,401,807	1948C	Mukden, Manchuria	1,790,000	1952E
apest, Hungary	1,058,288	1948C†	Munich, Germany	870,000	1953E
ton, China	1,210,000	1952E	Nagoya, Japan	1,030,635	1950C
etown, South Africa	571,638	1951C	Nanking, China	1,020,000	1952E
ablanca, Morocco	682,388	1952C	Naples, Italy	1,003,815	1951C
eng Mai, Thailand	534,623	1947C	Odessa, U.S.S.R.	604,223	1937E
ngking, China	2,000,000	1952E	Osaka, Japan	1,956,136	1950C
ogne, Germany	629,200	1953E	Port Arthur, Kwantung	1,010,000	1952E
enhagen, Denmark	961,400§	1955E	Prague, Czechoslovakia	932,024	1948E
ren, Kwantung	533,696	.....	Rangoon, Burma	600,000	1952E
hi, India	914,973	1951C	Recife, Brazil	560,000	1953E
lin, Ireland	522,183	1951C	Rome, Italy	1,606,739	1951C
en, Germany	624,100	1953E	Rotterdam, Netherlands	712,513	1955E
nkfurt am Main, Germany	564,400	1953E	Saigon, Viêt-Nam	698,000	1948E
noa, Italy	678,200	1951C	Santiago, Chile	1,348,283	1952C
sgow, Scotland	1,089,555	1951C	Seoul, Korea	1,446,049	1949E
ki, U.S.S.R.	644,116	1939C	Sheffield, England	512,834	1951C
gue, The, Netherlands	596,675	1955E	Sian, China	628,499	1948C
nburg, Germany	1,658,000	1953E	Stockholm, Sweden	776,947	1954E
rbin, Manchuria	1,000,000	1952E	Surabaja, Indonesia	714,898	1951E
vana, Cuba	783,162	1953C†	Sydney, Australia	1,863,217	1954C†
lerabad, India	1,085,722	1951C	Taipei, Formosa	573,597	.....
nbul, Turkey	1,018,468	1950C	Tashkent, U.S.S.R.	585,005	1939C
annesburg, U. of So. Af.	880,014	1951C	Teheran, Iran	1,010,000§	1949E
jakarta, Indonesia	1,848,886	1951E	Tiflis, U.S.S.R.	519,175	1939C
npur, India	705,383	1951C	Toronto, Canada	675,754	1951C
rachi, Pakistan	1,006,416	1951C	Tsingtao, China	850,308	1948E
arkov, U.S.S.R.	833,432	1939C	Turin, Italy	711,492	1951C
onkaen, Thailand	590,664	1947C	Valencia, Spain	534,463	1954E
ev, U.S.S.R.	846,293	1939C	Victoria, Hong Kong	767,000	.....
be, Japan	765,435	1950C	Vienna, Austria	1,766,102	1951C
oto, Japan	1,101,854	1950C	Warsaw, Poland	950,000	1954E
nore, Pakistan	849,333	1951C	Wuhan, China	1,090,000	1952E
pzig, Germany	607,700	1953E	Yokohama, Japan	951,189	1950C

* E—Estimated; C—Census. † Preliminary figures. ‡ Special census conducted under direction of U. S. Bureau Census, at city expense. § Including suburbs.

Great Disasters

Earthquakes and Volcanic Eruptions

A.D. 79 Aug. 24, ITALY: eruption of Mt. Vesuvius buried cities of Pompeii and Herculaneum, killing thousands.

1755 Nov. 1, PORTUGAL: one of the most severe of recorded earthquakes leveled Lisbon and was felt as far away as southern France and North Africa; between 10,000 and 20,000 killed in Lisbon alone.

1883 Aug. 26–28, NETHERLANDS INDIES: eruption of Krakatoa; violent explosions destroyed two-thirds of island. Sea waves occurred as far away as Cape Horn, and possibly England. Estimated 36,000 dead.

1902 May 8, MARTINIQUE, WEST INDIES: Mt. Pelée erupted and wiped out city of St. Pierre; 40,000 dead.

1906 April 18, SAN FRANCISCO: earthquake accompanied by fire razed more than 4 sq. mi.; more than 500 dead or missing; property damage about 250–300 millions.

1908 Dec. 28, MESSINA, SICILY: about 85,000 killed and city totally destroyed by one of most disastrous of recorded earthquakes.

1923 Sept. 1, JAPAN: earthquake destroyed third of Tokyo and most of Yokohama; more than 90,000 persons were killed.

1935 May 31, INDIA: earthquake at Quetta killed an estimated 50,000.

1939 Jan. 24, CHILE: earthquake razed some 50,000 sq. mi.; 30,000 persons killed.

1939 Dec. 27, NORTHERN TURKEY: severe quakes destroyed city of Erzingan; about 100,000 casualties.

1949 Aug. 5, ECUADOR: earthquake killed about 6,000 and razed 50 towns.

1950 Aug. 15, INDIA: second heaviest earthquake on record affected 30,000 sq. mi. in Assam; 20,000–30,000 believed killed.

1951 Jan. 18–21, PAPUA TERRITORY, NEW GUINEA: eruption of Mt. Lamington killed more than 3,000.

1954 Sept. 9, ALGERIA: about 1,500 reported dead in Northern Algerian earthquake.

1955 April 1, PHILIPPINES: about 430 killed in quakes.

Floods, Avalanches and Tidal Waves

WORLD

1228 HOLLAND: 100,000 reputedly drowned by sea flood in Friesland section.

1642 CHINA: rebels besieging Kaifeng destroyed seawall, causing flood that drowned 300,000 inhabitants.

1887 CHINA: hundreds of thousands of lives reputedly lost in Honan province in overflow of Hwang Ho River.

1896 JAPAN: earthquake and tidal wave at Sanriku killed 27,000.

1939 CHINA: floods in north; casualties estimated at 10,000,000 homeless, starved or drowned.

1946 ALASKA-HAWAII: series of tidal waves in Pacific originating off Alaska killed about 150 in Hawaii.

1947 JAPAN: floods in wake of typhoon killed about 2,000 on Honshu Island.

1948 TURKEY: hundreds of persons were drowned when two rivers in southern Turkey burst their dikes.

1948 CHINA: about 1,000 reported dead in floods near Foochow.

1950 CHINA: floods in eastern and southern China left 1,000,000 homeless and killed 500.

1951 ALPS: snow avalanches killed more than 200 in Alpine regions of Switzerland, Italy, France and Austria.

1951 MANCHURIA: floods killed 1,800; 3,000 missing.

1953 NORTHWEST EUROPE: storm followed by floods devastated North Sea coastal areas. Netherlands was hardest hit, with 1,794 dead.

1953 JAPAN: separate floods on Kyushu and Honshu islands reported to have killed about 1,300.

1954 IRAN: flash flood reportedly killed 2,000 religious pilgrims.

1955 JAVA: landslide at Pakasiran killed 405.

1955 THAILAND: tidal wave off Patan killed about 500.

UNITED STATES

1889 PENNSYLVANIA: more than 2,000 die in Johnstown flood.

1913 OHIO AND INDIANA: floods of Ohio and Indiana rivers took 730 lives.

1927 MISSISSIPPI VALLEY: floods inundated 20,000 sq. mi.; 700,000 were left homeless.

1937 MISSISSIPPI AND TRIBUTARY VALLEYS: floods in the Allegheny, Mississippi, Ohio valleys killed hundreds.

1954 TEXAS-MEXICO BORDER: flood of Rio Grande river killed 50 or more.

Tornadoes, Typhoons and Hurricanes

WORLD

64 Oct. 5, India: most of Calcutta denuded by cyclone; 70,000 killed.

76 Oct. 31, India: cyclone, tidal wave swept 3,000 sq. mi.; 215,000 killed.

82 June 6, India: cyclone and tidal wave killed 100,000 in Bombay.

06 China: typhoon at Hong Kong killed about 10,000.

30 Sept. 3, Santo Domingo (now Ciudad Trujillo): hurricane killed about 2,000 and injured 6,000.

34 Sept. 21, Japan: hurricane killed more than 4,000 on Honshu.

35 Oct. 25, Haiti: hurricane, flood killed 2,000 in Jérémie and Jacmel.

42 Oct. 16, India: cyclone devastated Bengal; about 40,000 lives lost.

49 Oct. 27, India: cyclone along southeastern coast killed about 1,000.

49 Oct. 31–Nov. 2, Philippines: 1,000 believed dead following typhoon.

52 Oct. 20–22, Indo-China, Philippines: typhoons killed more than 1,000.

53 Sept. 25, Viêt-Nam: typhoon left about 1,000 dead.

54 Sept. 26, Japan: typhoon off Hakodate killed 1,200–1,600.

55 Sept. 19, Mexico: Hurricane Hilda killed over 200 in Tampico area.

UNITED STATES

1884 Feb. 18, Southern States: tornadoes took about 700 lives.

1900 Sept. 8, Texas: Galveston hurricane and tidal wave; 5,000 dead.

1925 March 18, Midwest: about 800 killed and 13,000 injured in tornado which hit Ill., Ind., Tenn., Ky., and Mo.

1926 Sept. 18, Florida: east coast hurricane killed 373; 40,000 homeless.

1928 Sept. 12, Florida: hurricane from Windward Islands killed 4,000.

1936 April 2, Mississippi and Georgia: Tupelo, Miss., and Gainesville, Ga., centers of tornadoes which swept South; 402 killed, 1,853 injured.

1938 Sept. 21, New England: hurricane killed at least 488.

1953 May 11, Texas: tornado killed 114 and injured more than 500 in Waco.

1953 June 8, Michigan and Ohio: series of tornadoes killed 113 in Flint, Mich., and 19 in vicinity of Bowling Green, Ohio.

1954 Oct. 13–17, Eastern U. S., Haiti, and Canada: Hurricane Hazel killed about 750.

1955 May 25–27, Midwest and Texas: tornadoes killed about 125.

1955 Aug. 28, Northeastern States: Hurricane Diane and floods killed 200.

Fires and Explosions

WORLD

666 Sept. 2, England: "Great Fire of London" destroyed 13,200 houses, St. Paul's Church, 86 parish churches, etc. Damage 10 million pounds.

812 Sept. 14, Russia: fire started by Russians in Moscow after French occupation destroyed 30,800 houses.

881 Dec. 8, Austria: about 850 died in Ring Theater fire in Vienna.

917 Dec. 6, Canada: explosion and fire at Halifax when ammunition ship collided with a vessel; 1,500 dead.

922 Asia Minor: more than three-fifths of Smyrna destroyed by fire following Turkish occupation.

948 July 28, Germany: explosion in I. G. Farben Ludwigshaven works killed hundreds, injured 6,000.

949 Sept. 2, China: fire on Chungking waterfront killed 1,700 and gutted 10,000 buildings.

955 June 11, France: crash and explosion of racing car into crowd during Grand Prix race, Le Mans, killed 82.

UNITED STATES

1835 Dec. 16, New York City: 530 buildings destroyed by fire.

1871 Oct. 8, Chicago: the "Chicago Fire," which started in barn, swept 2,124 acres, burned 17,450 buildings, killed 250 persons, and made 98,500 homeless; 196 million damage.

1872 Nov. 9, Boston: fire destroyed 800 buildings; 75 million damage.

1903 Dec. 30, Chicago: Iroquois Theatre fire killed 602.

1904 Feb. 7, Baltimore, Md.: fire destroyed most of business section; 125 million damage.

1937 March 18, New London, Texas: explosion destroyed schoolhouse; 413 children and 14 teachers killed.

1942 Nov. 28, Boston: Cocoanut Grove night club fire killed about 500.

1944 July 17, Port Chicago, Calif.: more than 300 killed in explosion of two ammunition ships.

1946 Dec. 7, Atlanta: Fire in Winecoff Hotel killed 119.

1947 March 25, CENTRALIA, ILL.: explosion in coal mine killed 111 miners.

1947 April 16–18, TEXAS CITY, TEXAS: most of city destroyed, over 500 dead following explosion on ship.

1951 Dec. 21, near WEST FRANKFORT, ILL.: 119 coal miners died in explosion.

1953 Oct. 16, BOSTON, MASS.: explosion and fire aboard U. S. aircraft carrier *Leyte* killed 37.

Shipwrecks (not including military or naval action)

WORLD

1833 May 11, LADY OF THE LAKE: bound from England to Quebec, struck iceberg; 215 perished.

1853 Sept. 29, ANNIE JANE: emigrant vessel off coast of Scotland; 348 persons died.

1912 March 5, PRINCIPE DE ASTURIAS: Spanish steamer struck rock off Sebastien Pt.; 500 drowned.

1912 April 15, TITANIC: sank after colliding with iceberg; 1,513 died.

1914 May 29, EMPRESS OF IRELAND: sank after collision in St. Lawrence River; 1,024 perished.

1928 Nov. 12, VESTRIS: British steamer sank in gale off Virginia; 110 died.

1931 June 14, French excursion steamer overturned in gale off St. Nazaire; approximately 450 died.

1939 June 1, Submarine THETIS: sank in Liverpool Bay, Eng.; 99 perished.

1942 Oct. 2, QUEEN MARY: rammed and sank a British cruiser; 338 aboard the cruiser died.

1948 Dec. 3, KIANGYA: Chinese refugee ship wrecked in explosion; about 1,000 believed dead.

1949 Jan. 27, TAIPING: Chinese liner collided with collier and both sank; at least 600 died.

1949 Sept. 17, NORONIC: Canadian Great Lakes cruise ship burned at Toronto dock; about 130 died.

1950 Jan. 12, TRUCULENT: British submarine sank in Thames estuary after collision with tanker; 64 dead.

1951 April 16, AFFRAY: British submarine sank in English channel; 75 dead.

1953 Jan. 9, CHANG TYONG-HO: South Korean ferry foundered off Pusan; 249 reported dead.

1953 Jan. 31, PRINCESS VICTORIA: British ferry sank in Irish Sea; 133 reported lost.

1953 April 4, DUMLUPINAR: Turkish submarine sank in Dardanelles after collision with Swedish freighter; 81 lost.

1953 Aug. 1, MONIQUE: French motor ship with 120 aboard disappeared in South Pacific.

U. S. AND U. S. LINES

1865 April 27, SULTANA: boiler explosion on Mississippi River steamboat near Memphis; 1,450 killed.

1904 June 15, GENERAL SLOCUM: excursion steamer burned in New York Harbor; 1,021 perished.

1915 July 24, EASTLAND: Great Lakes excursion steamer overturned in Chicago River; 812 died.

1934 Sept. 8, MORRO CASTLE: about 130 killed in fire occurring off Asbury Park, N. J.

1939 May 23, Submarine SQUALUS: sank with 59 men off Hampton Beach, N. H.; 33 members of the crew were rescued.

1945 April 9, U. S. ship, loaded with aerial bombs, exploded at Bari, Italy; at least 360 killed.

1952 Jan. 10, FLYING ENTERPRISE: freighter sank about 35 miles off southwest England after valiant 12-day effort by captain, Henrik K. Carlsen, to save ship.

1952 April 26, HOBSON: minesweeper collided with aircraft carrier *Wasp* and sank during night maneuvers in mid-Atlantic; 176 persons were reported lost.

1954 Oct. 7, MORMACKITE: U. S. freighter capsized off Cape Henry, Va.; 37 lost.

Aircraft Accidents (not including military or naval action)

WORLD

1921 Aug. 24, ENGLAND: *ZR-2*, British dirigible, broke in two on trial trip near Hull; 62 died.

1930 Oct. 5, FRANCE: British dirigible, *R-101*, crashed at Beauvais; 47 died.

1935 May 18, U.S.S.R.: stunt flier crashed into giant land plane, the *Maxim Gorky;* 49 killed.

1938 July 24, COLOMBIA: military plane crashed into grandstand during air review at Bogotá, killing 53.

1947 Feb. 15, COLOMBIA: Avianca airliner crashed near Bogotá; 53 persons were killed.

1948 Aug. 1, ATLANTIC OCEAN: French flying boat with 52 persons aboard disappeared.

1949 July 12, near BOMBAY, INDIA: crash of Dutch airliner killed 13 U. S. journalists and 32 others.

1950 March 12, near CARDIFF, WALES: crash of chartered airliner killed 80.

1950 Nov. 13, near GRENOBLE, FRANCE: Canadian plane carrying Holy Year pilgrims crashed; 58 dead.

1952 March 22, near FRANKFURT, GERMANY: crash of Dutch airliner killed 45 of 47 aboard.

1953 May 2, near CALCUTTA, INDIA: British jet airliner crashed, killing 43.

1953 Sept. 1, near BARCELONNETTE, FRANCE: French airliner hit mountain; 42 dead.

1953 Oct. 14, near FRANKFURT AM MAIN, GERMANY: Belgian airliner crash killed 44.

U. S. AND U. S. LINES

1925 Sept. 3, CALDWELL, OHIO: U. S. dirigible *Shenandoah* broke apart, killing 14.

1933 April 4, NEW JERSEY COAST: U. S. dirigible *Akron* crashed into sea; 73 died.

1937 May 6, LAKEHURST, N. J.: German zeppelin *Hindenburg* destroyed by fire at tower mooring; 36 persons were killed.

1946 Oct. 3, NEWFOUNDLAND: U. S. trans-Atlantic airliner crashed near Stephenville; all 39 aboard killed.

1947 May 29, NEW YORK CITY: airliner crashed attempting takeoff; 43 died.

1947 May 30, BAINBRIDGE, MD.: all 49 passengers and four crew members killed in crash of airliner.

1947 June 13, near LEESBURG, VA.: Fifty killed in crash of airliner.

1947 Oct. 24, BRYCE CANYON, UTAH: airliner crashed into hillside after catching fire in midair; 52 persons were killed.

1948 June 17, near MOUNT CARMEL, PA.: all 43 persons aboard airliner were killed as it crashed and burned.

1948 Aug. 29, near WINONA, MINN.: all 36 aboard airliner killed when it crashed into bluff.

1949 June 7, near SAN JUAN, PUERTO RICO: crash of converted army transport into ocean killed 53; 28 rescued.

1949 July 12, near LOS ANGELES, CALIF.: nonscheduled airliner hit mountain, killing 35 persons and injuring 14.

1949 Nov. 1, WASH., D. C.: fighter plane rammed airliner, killing 55.

1950 Jan. 27, YUKON, CANADA: U. S. Air Force plane disappeared with 44 aboard.

1950 Aug. 31, near CAIRO, EGYPT: crash of U. S. airliner killed 55, including 23 Americans.

1951 March 23, ATLANTIC OCEAN: U. S. Air Force transport with 53 aboard disappeared.

1951 April 25, near KEY WEST, FLA.: Cuban airliner and U. S. Navy plane collided; 43 killed.

1951 June 22, near SANOYE, LIBERIA: 40 persons aboard U. S. airliner died in crash.

1951 June 30, ROCKY MOUNTAIN NATIONAL PARK, COLO.: airliner crash killed 50 persons.

1951 Dec. 16, ELIZABETH, N. J.: nonscheduled airliner crash killed 56.

1952 Jan. 19, near SANDSPIT AIRPORT, B. C., CANADA: U. S. airlift plane with Korean veterans aboard fell into Pacific; 36 persons were killed, 7 survived.

1952 Jan. 22, ELIZABETH, N. J.: 29 killed, including former Sec. of War Robert P. Patterson, when airliner hit apartments; 7 of victims were on ground.

1952 Feb. 11, ELIZABETH, N. J.: third major air disaster in Elizabeth within 2 months fatally injured 33.

1952 April 11, near SAN JUAN, PUERTO RICO: airliner crashed into sea; 52 killed, 17 rescued.

1952 April 29, NORTH CENTRAL BRAZIL: airliner bound for New York crashed in jungle; 50 died.

1952 Nov. 14, near SEOUL, KOREA: crash of "Flying Boxcar" killed 44, including servicemen.

1952 Nov. 23, near ANCHORAGE, ALASKA: Air Force transport crashed, killing 52.

1952 Dec. 20, MOSES LAKE, WASHINGTON: crash of Air Force "Globemaster" killed 87 servicemen, injured 28.

1953 Jan. 7, near FISH HAVEN, IDAHO: Army transport plane crash killed 40.

1953 Feb. 14, GULF OF MEXICO: airliner crash during storm killed 46.

1953 June 18, near TOKYO, JAPAN: crash of U. S. Air Force "Globemaster" killed 129 servicemen in world's worst air disaster to date.

1953 July 11, PACIFIC OCEAN: airliner crashed about 325 mi. east of Wake Island; 58 persons were killed.

1954 Oct. 31, ATLANTIC OCEAN: U. S. navy plane with 42 aboard lost.

1954 Dec. 18, NEW YORK CITY: Italian plane fell into Jamaica bay; 26 dead.

1955 March 22, near HONOLULU, HAWAII: crash of U. S. navy transport plane killed 66.

1955 July 17, CHICAGO: airliner crash killed 22.

Railroad Accidents

WORLD

1857 March 17, Des Jardines Canal, Canada: train derailed on bridge; about 60 killed.

1864 June 29, near Beloeil, Canada: about 90 killed when train ran through open switch.

1879 Dec. 28, Dundee, Scotland: train blown off Tay bridge; 73 drowned.

1881 June 24, near Cuartla, Mexico: about 200 died when train fell into river.

1882 July 13, near Tcherny, Russia: more than 150 killed in derailment.

1889 June 12, near Armagh, Ireland: about 80 killed in collision.

1891 June 14, near Basel, Switzerland: about 100 killed in collision.

1915 May 22, Gretna, Scotland: two passenger trains and troop train collided; 227 killed.

1938 Dec. 25, near Kishinev, Rumania: about 100 killed in collision.

1939 Dec. 22, near Magdeburg, Germany: more than 125 killed in collision; 99 killed in another wreck near Friedrichshafen.

1940 Jan. 29, Osaka, Japan: 200 killed in collision.

1944 March 2, near Salerno, Italy: 521 suffocated when Italian train stalled in tunnel.

1949 Oct. 22, near Nowy Dwor, Poland: more than 200 reported killed in derailment of Danzig-Warsaw express.

1950 April 6, near Rio de Janeiro, Brazil: train wrecked when bridge collapsed; 108 killed or missing.

1952 March 4, near Rio de Janeiro, Brazil: about 120 reported killed in collision of 2 trains.

1952 Oct. 8, Harrow-Wealdstone, England: two express trains crashed into commuter train; 112 dead.

1953 Dec. 24, near Waiouri, New Zealand: train plunged through bridge; 155 dead and others missing.

1953 Dec. 24, near Sakvice, Czechoslovakia: crash of two trains reported to have killed 103.

1954 Sept. 28, near Hyderabad, India: 137 dead when train plunges into river.

UNITED STATES

1856 July 17, near Philadelphia, Pa.: train carrying Sunday-school children wrecked; 66 killed.

1876 Dec. 29, Ashtabula, O.: 80 killed when train broke through bridge.

1887 Aug. 10, near Chatsworth, Ill.: about 80 killed in wreck.

1904 Aug. 7, near Eden, Colo.: about 100 killed in wreck.

1910 March 1, Wellington, Wash.: more than 90 killed.

1938 June 19, Miles City, Mont.: train ran through bridge; 47 killed.

1943 Sept. 6, Philadelphia, Pa.: train derailed; 79 killed.

1943 Dec. 16, near Rennert, N. C.: 72 killed in derailment and collision.

1944 Dec. 31, near Ogden, Utah: 48 killed in collision.

1946 April 25, Naperville, Ill.: at least 47 killed in collision.

1950 Feb. 17, Rockville Centre, N. Y.: head-on crash of two commuter trains killed 30.

1950 Sept. 11, near West Lafayette, O.: streamliner rammed rear of troop train; 33 National Guardsmen dead.

1950 Nov. 22, Richmond Hill, N. Y.: 79 died when one commuter train crashed into rear of another.

1951 Feb. 6, Woodbridge, N. J.: 85 died when commuter train plunged through temporary overpass.

America's Tallest Buildings

City	Building	No. of stories	Height, feet
New York	Empire State	102	1,250
New York	Chrysler	77	1,046
New York	60 Wall Tower	66	950
New York	Bk. of Manhattan	71	925
New York	R. C. A.	70	850
New York	Woolworth	60	792
New York	City Bank-Farmers Trust	57	741
Cleveland	Terminal Tower	52	708
New York	500 Fifth Avenue	60	700
New York	Metropolitan Life	50	700
New York	Chanin	56	680
New York	Lincoln	53	673
New York	Irving Trust	50	654
New York	General Electric	50	641
New York	Waldorf-Astoria	47	625
New York	10 E. 40th St.	48	621
New York	New York Life	40	617
New York	Singer	47	612
Chicago	Board of Trade	44	605
Chicago	Prudential	41	602
New York	U. S. Court House	37	590
Pittsburgh	Gulf	44	582
New York	Municipal	40	580
Cincinnati	Carew Tower	48	574
New York	Socony Mobil*	42	572
New York	Continental Bank	48	565
New York	Sherry-Netherland	40	560
New York	N. Y. Central	35	560
Chicago	Pittsfield	39	557
Columbus	Lincoln-LeVeque Tower	46	556
Chicago	Sheraton	42	555
Detroit	Penobscot	47	551
New York	1407 Broadway	44	512
New York	U. N. Building	39	505
New York	100 Park Ave.	36	443

* Scheduled for completion 1956.

Record Passages of Atlantic (Screw) Steamships since 1867

Source: Maritime Administration.

WESTWARD PASSAGES

Date	Ship and (flag*)	To New York from	Time D. H. M.	Speed knots	Sea miles
1867	CITY OF PARIS (B) (Time record only)	Queenstown	8 4 1	.....	.....
1872	ADRIATIC (B)	"	7 23 17	14.52	.....
1875	CITY OF BERLIN† (B)	"	7 18 2	15.2	.....
1875–1877	GERMANIC (B)	"	7 11 37	15.75	.....
1876–1877	BRITANNIC (B)	"	.. .. .. / 7 10 53	15.46 /	..... / .....
1882–1883	ALASKA† (B)	"	.. .. .. / 6 21 40	16.04 /	..... / .....
1884	OREGON† (Guion) (B)	"	6 10 9	.....	.....
1884	OREGON (Cunard) (B)	"	6 9 42	18.16	.....
1887	UMBRIA (B)	"	6 4 34	18.91	.....
1885–1888	ETRURIA† (B)	"	6 1 44	19.57	.....
1889–1892	CITY OF PARIS† (B)	"	.. .. .. / 5 14 24	20.01 / 20.7	..... / .....
1890–1891	TEUTONIC† (B)	"	.. .. .. / 5 16 31	20.17 / 20.35	..... / .....
1891–1892	MAJESTIC† (B)	"	5 18 8 /	20.11 / 20.41	..... / .....
1893	CAMPANIA (B)	"	5 9 6	.....	.....
1894	LUCANIA† (B)	"	5 7 23	21.82	.....
1898	KAISER WILHELM DER GROSSE† (G)	Southampton	.. .. .. / 5 15 20	22.07 / 22.29	..... / .....
1900–1901	DEUTSCHLAND (G)	"	5 11 54	23.15	3,044
1907–1910	LUSITANIA† (B)	Queenstown	.. .. .. / 4 11 40	24.00 / 25.88	..... / .....
1908–1911	MAURETANIA† (B)	"	4 10 41	26.06	.....
1929	" (B)	Cherbourg	4 21 44	26.9	3,162
1929	BREMEN† (G)	"	4 17 42	27.83	.....
1930	EUROPA† (G)	"	4 17 6	27.91	3,157
1933	REX† (I)	Gibraltar	4 13 58	28.92	3,181
1935	NORMANDIE† (F)	Bishop's Rock	4 3 2	29.98	3,015
1936–1938	QUEEN MARY† (B)	"	4 0 27 / 3 21 48	30.14 / 30.99	2,939 / 2,907
1952	UNITED STATES† (US)	Bishop's Rock	3 12 12	34.51	2,906

EASTWARD PASSAGES

Date	Ship and (flag*)	From New York to	Time D. H. M.	Speed knots	Sea miles
1869	CITY OF BRUSSELS† (B)	Queenstown	7 22 3	14.65	.....
1873	BALTIC† (B)	"	7 20 9	15.11	.....
1875	CITY OF BERLIN† (B)	"	7 15 28	15.37	.....
1876	GERMANIC† (B)	"	7 15 17	15.78	.....
1876	BRITANNIC† (B)	"	7 12 41	15.95	.....
1879	ARIZONA† (B)	"	7 8 0	15.95	.....
1882–1883	ALASKA† (B)	"	6 18 37 /	..... / 16.88	..... / .....
1884	OREGON (Guion) (B)	"	6 16 57	.....	.....
1884	AMERICA (B)	"	6 14 8	17.8	.....
1884	OREGON† (Cunard) (B)	"	6 10 40	18.18	.....
1885–1888	ETRURIA† (B)	"	6 4 54	19.41	.....
1888	UMBRIA (B)	"	6 3 12	.....	.....
1889	CITY OF PARIS† (B)	"	5 22 50	19.49	.....
1891	TEUTONIC (B)	"	5 21 3	19.78	.....
1892	CITY OF NEW YORK (B)	"	5 19 57	20.1	.....
1894	LUCANIA† (B)	"	5 8 38 /	..... / 22.01	..... / .....
1897–1898	KAISER WILHELM DER GROSSE† (G)	Southampton	5 15 25	22.51	.....
1900–1901	DEUTSCHLAND† (G)	Eddystone Lt.	5 7 38	23.51	3,082
1904	KAISER WILHELM II† (G)	Plymouth	5 8 16	23.58	.....
1907–1910	LUSITANIA† (B)	Queenstown	.. .. .. / 4 15 50	23.61 / 25.57	..... / .....
1908–1911	MAURETANIA† (B)	"	4 13 41	25.89	.....
1924	" (B)	Cherbourg	5 1 49	26.25	3,198
1929	" (B)	Plymouth	4 17 50	27.22	3,098
1929–1933	BREMEN† (G)	Cherbourg	4 14 30 / 4 17 43	27.91 / 28.14	3,084 / .....
1933			4 16 15	28.51	3,199
1935–1937	NORMANDIE† (F)	Bishop's Rock	4 3 25 / 4 .. 6	30.35 / 30.99	..... / 2,978
1936–1938	QUEEN MARY† (B)	"	3 23 57 / 3 20 42	30.63 / 31.69	..... / 2,938
1952	UNITED STATES† (US)	Bishop's Rock	3 10 40	35.59	3,144

*(B)—British; (G)—German; (I)—Italian; (F)—French. †Vessels which have held the Blue Riband.

HISTORICAL AND NEWS EVENTS

FROM ANCIENT TO MODERN TIMES

Compiled by

ENCYCLOPAEDIA BRITANNICA

(See also our section entitled *Headline History of Our Times*)

Actium, Battle of (31 B.C.). Octavius defeats Mark Anthony.

Alexander the Great conquers Greece, Persia, Egypt and part of India (334–330 B.C.). Major battles: Granicus (334 B.C.), Issus (333), Arbela (331).

American Revolution (1775–83). Outstanding events: 1775—Battle of Lexington-Concord (Apr. 19). Battle of Bunker Hill (June 17). 1776—Battle of Long Island (Aug. 27). 1777—Burgoyne surrenders at Saratoga (Oct. 17). 1781—Battle of Cowpens (Jan. 17). Battle of Yorktown (Sept. 28–Oct. 19), and British surrender by Cornwallis. 1783—Treaty signed by U. S. and Britain (Sept. 3).

"Babylonian Captivity" of Papacy with seat at Avignon (1309–77).

Bacon's Rebellion (May 10–Oct. 18, 1676). Nathaniel Bacon leads unsuccessful insurrection in Virginia because of abuses in government administration and taxation.

Balfour Declaration (Nov. 2, 1917) promises Jewish homeland in Palestine.

Balkan Wars (1912–13). Bulgaria, Serbia, Greece and Montenegro defeat Turkey; later, Bulgaria attacks Serbia and Greece and is defeated.

Bastille destroyed (July 14, 1789).

Benedictine Order founded at Monte Cassino (c. A.D. 529).

Bible translated by Wycliffe into English (1382–84); Douay Version published (1582 & 1609–10); King James Version published (1611).

Black Death (beginning c. 1347) wipes out at least ¼ of the population of Europe.

Black Friday (Sept. 24, 1869). Financial panic results from gold corner in U. S.

Boer War (1899–1902). Boers defeated by British; sign peace treaty at Pretoria (May 31, 1902).

Boston Massacre (Mar. 5, 1770). British soldiers fire on Boston mob, killing 3.

Boston Tea Party (Dec. 16, 1773). Colonials dump tea in Boston Harbor because of tea tax.

Boxer Rebellion (1900). Uprising by secret society in northern China against foreigners.

Brown, John, and 18 followers raid Harpers Ferry (Oct. 16, 1859) and seize arsenal; taken prisoners by U. S. Marines (Oct. 18); Brown hanged (Dec. 2).

Burr-Hamilton duel. *See* Hamilton.

Cape-to-Cairo Railroad completed (1918).

Carthage founded by Phoenicians (c. 900 B.C.); destroyed by Romans (146 B.C.).

Châlons, Battle of (A.D. 451). Attila the Hun defeated by Romans.

Charlemagne crowned Emperor of the West (A.D. 800).

Charles I beheaded (Jan. 30, 1649). *See also* Great Rebellion.

Children's Crusade (1212). About 50,000 unarmed children set out to recover Holy Sepulchre; all lost or die on the way.

Chinese-Japanese War (1894–95). Japan wins Formosa, Pescadores and part of southern Manchuria; Korea becomes independent (annexed by Japan 1910).

Christianity made official religion of Roman Empire (A.D. 330).

Civil War, American (1861–65). Outstanding events: 1861—First Battle of Bull Run (July 21). 1862—*Monitor* defeats *Merrimac* (Mar. 9). Battle of Antietam (Sept. 15–17). 1863—Lincoln's Emancipation Proclamation (Jan. 1). Battle of Gettysburg (July 1–3). Grant captures Vicksburg (July 4). Battle of Lookout Mountain (Nov. 23–25). 1864—Battle of the Wilderness (May 5–6). Sherman's March through Georgia (Nov. 14–Dec 22). 1865—Lee surrenders at Appomattox (Apr. 9).

Code Napoléon, unified codification of French law, adopted (1804).

Code of Hammurabi (c. 2300 B.C.). Oldest existing written code of laws.

Communist Manifesto issued by Karl Marx and Friedrich Engels (1848).

Compromise of 1850 admits California as free state; organizes Utah and New Mexico as territories without mention

of slavery; prohibits slave trade in D. C.; returns fugitive slaves to masters; pays Texas $10 million for her claim to New Mexico.

Confederacy proclaimed by seceding states (Feb. 9, 1861); Jefferson Davis named President.

Congress of Vienna (1814–15). European powers, under leadership of Metternich, meet to settle problems of territory and government resulting from Napoleonic Wars.

Constantinople founded (as Byzantium) by Greeks (c. 660 B.C.); made capital of Eastern Roman Empire by Constantine the Great (A.D. 330); captured by Turks (1453); renamed Istanbul (1930).

Council of Nicaea (A.D. 325). Called by Constantine the Great; establishes official creed of Christianity (Nicene Creed).

Council of Trent (1545–64). Called by Pope Paul III, at suggestion of Emperor Charles V, to establish Catholic Counter Reformation.

"Coxey's Army" (March. 25–May 1, 1894). Jacob S. Coxey leads 20,000 unemployed on Washington, D. C.

Crimean War (1853–56). Russia loses claim to Greek Christians under Turkish flag.

Crucifixion of Christ (c. A.D. 29). According to New Testament, Christ rose from the dead 2 days later.

Crusades (1096–1291). European Christians, in 7 periods of conflict, attempt to recover Holy Land from Moslems. *See also* Children's Crusade.

Custer massacre (June 25, 1876). Gen. George A. Custer and his forces killed at Battle of Little Big Horn by Sioux.

Divine Comedy begun by Dante (1307); probably finished in last year of his life (1321).

Dominican Order founded (1215).

Dorr Rebellion (1841–42). Thomas W. Dorr leads unsuccessful attempt to extend franchise in Rhode Island; franchise extended 1843.

Dred Scott case (1846). Dred Scott, Negro slave, sues for freedom on claim he has lived for a time on free soil; U. S. Supreme Court rules (Mar. 6, 1857) that Scott is not a citizen and has no standing in court.

Dreyfus case (1894). Capt. Alfred Dreyfus found guilty of treason in France and sentenced to Devil's Island. Finally acquitted (1906).

Easter Rebellion (April. 24, 1916). Irish nationalists unsuccessfully attempt to throw off British rule.

Edict of Nantes (1598). Extended toleration to Huguenots (French Protestants); its revocation (1685) caused widespread persecution of Huguenots.

Evolution trial. *See* Scopes.

Fawkes, Guy. *See* Gunpowder Plot.

Feudalism, lord-vassal social system, established throughout Europe (9th century); begins to break up (14th–15th centuries).

Franciscan Order founded (1210).

Franco-Prussian War (1870–71). France defeated by German states; loses Alsace-Lorraine.

Freedom of press established in America as John Peter Zenger, New York editor, is acquitted in libel case against Gov. Cosby (1735).

French and Indian War. *See* Seven Years' War.

French Revolution (1789–99). Outstanding events: 1789—Bastille destroyed (July 14). Feudal rights abolished (Aug. 4). 1792—September Massacres (Sept. 2–6). France becomes republic (Sept. 21). 1793—Louis XVI beheaded (Jan. 21); Marie Antoinette beheaded (Oct. 16). Reign of Terror (spring 1793–summer 1794). 1795—Napoleon heads army. Directory established (Oct. 27). (Revolution merges into Napoleonic Wars.)

Gold rush develops as gold is discovered at Sutter's Mill, near Sacramento, Calif. (Jan. 2, 1848).

Great Rebellion (1642–49). Civil wars in England. Charles I beheaded (Jan. 30, 1649); Cromwell establishes Commonwealth (1649).

Great Wall of China begun (255 B.C.).

Gregorian Calendar replaces Julian Calendar in Catholic countries (1582), in Britain and her Colonies (1752), in Russia (1918).

Gunpowder Plot (1605). Guy Fawkes, agent of conspirators against King and Parliament, seized as he is about to blow up House of Lords (Nov. 5).

Hamilton-Burr duel (July 11, 1804) results in Hamilton's death next day.

Hastings, Battle of (1066). Normans led by William the Conqueror invade England.

Hegira (A.D. 622). Mohammed flees from Mecca to Medina. Year I of Mohammedan calendar.

Holy Alliance formed by Russia, Austria and Prussia (Sept. 26, 1815); intended to regulate government according to Christianity but actually used for repressing political liberty.

Holy Roman Empire founded by Otto the Great (962); dissolved by Napoleon (1805).

Huguenots. *See* Edict of Nantes; St. Bartholomew Massacre.

Hundred Years' War (1338–1453). England loses lands in France. Major battles: Crécy (1346), Poitiers (1356), Agincourt (1415).

Industrial Revolution begins in England (c. 1760). Machines gradually replace hand tools, bringing about vast industrial and social changes.

Inquisition established (c. 1233) to combat heresy; put under state control in Spain (1480); abolished in France (1772), in Spain (1834).

International, First (1864). Founded in London to further world socialism; dissolved in Philadelphia (1876).

International, Second (1889). Founded in Paris to celebrate 100th anniversary of French Revolution.

International, Third (1919). Founded in Moscow as protest against inactivity of Second International; dissolved (1943). Also called *Communist International* or *Comintern*.

Jamestown, Va., settled by British under Capt. John Smith (1607).

Jerusalem destroyed by Nebuchadnezzar (586 B.C.); returned to Jews by Cyrus (538 B.C.); captured by Titus (A.D. 70); captured by Crusaders (1099); captured by Saladin (1187).

Jesuits (Society of Jesus) founded by Ignatius of Loyola (1534).

Joan of Arc burned at stake (1431).

Justinian Code (A.D. 533). Codification of Roman law by Byzantine Emperor Justinian.

Kansas-Nebraska Act (1854) abrogates Missouri Compromise; permits territories of Kansas and Nebraska local option on slavery question; results in rioting and bloodshed.

Leopold-Loeb case (1924). Nathan Leopold and Richard Loeb kidnap and kill Bobby Franks in Chicago (May 22); sentenced to life imprisonment (July 21); Loeb killed by fellow convict (Jan. 28, 1936); parole refused to Leopold (May 14, 1953).

Lindbergh flight (May 20–21, 1927). Charles A. Lindbergh makes first solo flight across Atlantic.

Locarno Conferences (Oct. 1925) seek to insure peace and preserve boundaries in Europe by mutual guarantees.

Louis XVI beheaded (Jan. 21, 1793). *See also* French Revolution.

Magna Carta, charter listing rights and privileges of English barons, proclaimed at Runnymede (June 15, 1215); King John forced by barons to accept it.

Manhattan Island purchased by Peter Minuit from Indians (1626) for trinkets worth 60 guilders (about $24).

Mary, Queen of Scots, convicted in England (1586) of being accomplice in plot to murder Queen Elizabeth; beheaded (Feb. 8, 1587).

Maximilian, Emperor of Mexico, executed by Benito Juárez (June 19, 1867) after Napoleon III of France withdraws support of Mexican empire.

Merrimac. *See* Monitor.

Mexican War (1846–1848) ends in American victory; Treaty of Guadalupe Hidalgo signed (1848).

Ming Dynasty (1368–1644). Noted for great development of culture and art in China.

Missouri Compromise (1820) admits Maine as free state, Missouri as slave state; slavery prohibited in Louisiana Territory north of 36° 30′. *See also* Kansas-Nebraska Act.

Monitor, Union ship, defeats *Merrimac*, Confederate ship (Mar. 9, 1862).

Mooney, Tom, sentenced to death for bomb explosion in San Francisco during Preparedness Day Parade (1916); sentence commuted to life (1918); freed (1939).

Mormonism (Church of Jesus Christ of Latter-day Saints) founded by Joseph Smith at Fayette, N. Y. (Apr. 6, 1830).

Moses leads Jews out of Egypt (c. 1300 B.C.).

Napoleonic Wars (1796–1815). Outstanding events: 1798—Campaign in Egypt. 1805—Nelson defeats French at Battle of Trafalgar (Oct. 21). French defeat Russians and Austrians at Battle of Austerlitz (Dec. 2). 1813—French defeated in Battle of Leipzig (Oct. 16–19). 1814—Napoleon abdicates (Apr. 11); sent to Elba. 1815—Napoleon flees Elba (Feb. 26). Napoleon defeated in Battle of Waterloo (June 18). *See also* Congress of Vienna.

Northwest Ordinance (1787). Adopted for territory north of Ohio River. Establishes method for admitting new states; prohibits slavery in territory.

Orthodox Eastern Church excommunicated by Pope Leo IX (1054); schism final between Western and Eastern Churches.

Parliament established in England (1295).

Peloponnesian War (431–404 B.C.). Sparta under Lysander defeats Athens.

Persian Wars (499–478 B.C.). Greece defeats Persia. Major battles: Marathon (490 B.C.), Thermopylae (480), Salamis (480), Plataea (479), Mycale (479).

Pilgrims land at Plymouth Rock (Dec. 21, 1620).

Plague in London ("Great Plague") causes 68,596 deaths (1665).

Plymouth Rock. *See* Pilgrims.

Poland partitioned out of existence among Prussia, Russia and Austria (1772, 1793, 1795).

Pony Express (1860–61). Between St. Joseph, Mo., and Sacramento, Calif.

Pullman strike (June–July 1894). Strike smashed by Federal troops; Eugene V. Debs jailed for contempt.

Punic Wars (264–146 B.C.). Romans defeat Carthaginians and destroy Carthage (146 B.C.). Major battles: Cannae (216 B.C.), Zama (202).

Rasputin ("Black Monk"), confessor to Tsarina, murdered (Dec. 31, 1916).

Reformation (beginning 16th century). Outstanding events: Luther nails his 95 theses to church door at Wittenberg, Germany (1517). Zwingli begins Reformation in Switzerland (1519). Luther burns papal bull and canon law (1520). Calvin publishes *Institutes of the Christian Religion* (1536). Act of Supremacy makes King head of Church of England (1534). Calvin organizes Geneva as theocratic state (1541). Knox establishes Presbyterian Church in Scotland (1560).

Renaissance (14th–16th centuries). Revival of classical learning in Europe stimulates vigorous activity in arts, literature, humanities, etc.

Roman Empire established under Augustus (27 B.C.); divided into Western and Eastern Empires (A.D. 395); Western Empire falls (476); Eastern Empire falls with capture of Constantinople (1453).

Rome founded, according to legend, by Romulus (753 B.C.); burned, perhaps by Nero (A.D. 64); sacked by Visigoths under Alaric (410); sacked by Vandals under Genseric (455).

Russo-Japanese War (1904–05). Port Arthur surrenders to Japanese (Jan. 2, 1905); Treaty of Portsmouth, N. H. (Sept. 5).

Russo-Turkish War (1877–78). Power of Turkey in Europe broken; redivision of southeastern Europe at Congress of Berlin (June 13–July 13, 1878).

St. Bartholomew, Massacre of (Aug. 24–Oct. 3, 1572). Some 50,000 Huguenots (French Protestants) killed in Paris and provinces at instigation of Catherine de Médicis.

St. Valentine's Day Massacre (Feb. 14, 1929). 6 members of Moran gang lined up against wall by rival gang and shot.

Savonarola, Florentine priest and dictator, tried for sedition and heresy (1498); hanged and burned (May 23).

Scopes Evolution Trial held at Dayton, Tenn. (July 10–21, 1925). John T. Scopes prosecuted by William Jennings Bryan for teaching evolution in Tennessee school; defended by Clarence Darrow. Scopes convicted but decision later set aside.

Seven Years' War (1756–63). France, Austria, Sweden, Russia vs. England and Prussia. Clive defeats French at Battle of Plassey (1757), giving British supremacy in India; England wins Canada; Prussia retains Silesia. (American phases of war known as French and Indian War, 1754–63.)

Shays' Rebellion (1786). Capt. Daniel Shays leads unsuccessful insurrection against Massachusetts government because of economic crisis.

Slavery in British Empire abolished by Parliament (1833).

Slavery introduced into American Colonies at Jamestown, Va. (1619); abolished in U. S. by 13th Amendment (1865).

Snyder-Gray case (1927). Ruth Snyder and Judd Gray murder her husband, Albert Snyder (Mar. 20); both executed at Sing Sing (Jan. 12, 1928).

Spanish-American War (1898). Outstanding events: U. S. battleship *Maine* blown up in Havana harbor (Feb. 15). Dewey destroys Spanish fleet at Manila (May 1). Charge of San Juan Hill (July 1). Cervera's fleet destroyed off Santiago, Cuba, by U. S. ships (July 3). Treaty of Paris (Dec. 10).

Spanish Armada destroyed by British (1588).

Spartacus, Roman slave and gladiator, leads unsuccessful slave insurrection (73–71 B.C.).

Stamp Act (effective Nov. 1, 1765). First direct tax placed on America by Britain; protested by Stamp Act Congress in New York (Oct. 7–25); repealed by Britain (Mar. 18, 1766).

Sutter's Mill. *See* Gold.

Texan war of independence from Mexico (1836). Major battles: Alamo (Mar. 6), San Jacinto (Apr. 21).

Thaw-White case (1906). Harry K. Thaw, millionaire, murders Stanford White, noted architect, in Madison Square Garden (June 25).

Thirty Years' War (1618–1648). England, Holland, France, Sweden and German Protestants against Spain, Italy and German Catholics; Peace of Westphalia ends conflict, Alsace going to France. Swiss independence being recognized, and German secularized states being given religious freedom.

Tours, Battle of (A.D. 732). Charles Martel defeats Moslems, checking their advance in western Europe. Also called Battle of Poitiers.

Trojan War (c. 1200 B.C.). Greeks defeat Trojans; destroy city of Troy.

Tutankhamen's tomb discovered near Luxor by Lord Carnarvon and Howard Carter (1922).

Tweed Ring, corrupt New York political group headed by Wm. Marcy Tweed, Tammany Boss, broken up (1872); Tweed convicted (Nov. 5).

War of 1812 (1812–1815). Outstanding events: 1813—Battle of Lake Erie (Sept. 10). 1814—British burn White House at Washington (Aug. 24–25). Battle of Lake Champlain (Sept. 11). U. S. signs treaty with Britain at Ghent (Dec. 24). 1815—Battle of New Orleans (Jan. 8). (Slowness of communications was responsible for continuation of hostilities after treaty.)

Wars of the Roses (1455–85). House of York (white rose) against House of Lancaster (red rose). Richard III slain at Battle of Bosworth Field (1485); Tudor line started by Henry VII.

Whisky Insurrection (July–Nov. 1794). Farmers in western Pennsylvania revolt unsuccessfully against excise tax of 1791.

Witch trials in Salem, Mass., result in death sentences for 19 women by Judge Samuel Sewall (1692).

Woman suffrage first granted in U. S. by Wyoming Territory (1869).

World War I (1914–18). Central Powers (Austria-Hungary, Germany, Bulgaria, Turkey) vs. Allies (U. S., Britain, France, Russia, Belgium, Serbia, Greece, Rumania, Montenegro, Portugal, Italy, Japan). Outstanding events: 1914—Austria declares war on Serbia (July 28). Germany declares war on Russia (Aug. 1) and on France (Aug. 3). Germany invades Belgium (Aug. 4). Britain declares war on Germany (Aug. 4). Germans defeat Russians at Tannenberg, East Prussia (Aug. 31). First Battle of the Marne (Sept. 5–12). 1915 Dardanelles campaign against Turkey fails. 1916—Battle of Jutland (May 31). Battles of the Somme (July–Nov.). Germans turned back at Verdun (Sept. 3). Rumania overrun by Central Powers; fall of Bucharest (Dec. 6). 1917—Germany begins unrestricted submarine warfare. U. S. declares war (Apr. 6). Battle of Caporetto (Oct. 24–Dec. 26). 1918—Second Battle of the Somme (Aug. 21–Sept. 3). Third Battle of the Aisne (May 27–June 6). Second Battle of the Marne (July 15–Aug. 7). U. S. troops take St. Mihiel (Sept. 13). Battle of the Meuse-Argonne (Sept. 20–Nov. 11). Allies break Hindenburg line (Oct. 5). Armistice signed (Nov. 11).

Zenger case. *See* Freedom of press.

Firsts in America

Admiral in U. S. Navy: David Glasgow Farragut, 1866.

Air-mail route, first transcontinental: Between New York City and San Francisco, 1920.

Assembly, representative: House of Burgesses, founded in Virginia, 1619.

Bank established: Bank of North America, Philadelphia, 1781.

Birth in America of English parents: Virginia Dare, born Roanoke Island, N. C., 1587.

Botanic garden: Established by John Bartram in Philadelphia, 1728. (Oldest existing one was established in Cambridge, Mass., in 1807.)

Cartoon, colored: "The Yellow Kid," by Richard Outcault, in *New York World*, 1895.

College to confer degrees on women: Oberlin (Ohio) College, 1841.

College to establish coeducation: Oberlin (Ohio) College, 1833.

Electrocution of a criminal: William Kemmler in Auburn Prison, Auburn, N. Y., Aug. 6, 1890.

Execution for murder: John Billington, Massachusetts, 1630.

Five and Ten Cents Store: Founded by Frank Woolworth, Utica, N. Y., 1879 (moved to Lancaster, Pa., same year).

Fraternity: Phi Beta Kappa; founded Dec. 5, 1776, at College of William and Mary.

Law to be declared unconstitutional by U. S. Supreme Court: Judiciary Act of 1789. Case: Marbury vs. Madison, 1803.

Library, circulating: Philadelphia, 1731.

Newspaper: *The Boston News-Letter*, April, 1704.

Newspaper, illustrated daily: *New York Daily Graphic*, 1873.

Newspaper published daily: *Pennsylvania Packet and General Advertiser*, Philadelphia, Sept., 1784.

Newsreel: Pathé Frères of Paris, in 1910 circulated a weekly issue of their *Pathé Journal*.

Oil well, commercial: Titusville, Pa., 1859

Panel quiz show on radio: *Information Please*, May 17, 1938.

Postage stamps issued: 1847.

President pro tempore of the U. S. Senate: John Langdon, of New Hampshire, 1789.

Railroad, transcontinental: Central Pacific and Union Pacific railroads joined near Ogden, Utah, May 10, 1869.

Savings bank: The Provident Institute for Savings, Boston, 1816.

Science museum: Founded by Charleston (S. C.) Library Society, 1773.

Skyscraper: Home Insurance Co., Chicago, 1885 (10 floors, 2 added later).

Slaves brought into America: At Jamestown, Va., 1619, from a Dutch ship.

Sorority: Kappa Alpha Theta, at De Pauw University, 1870.

State to abolish capital punishment: Michigan, 1847.

State to enter Union after original 13: Vermont, 1791.

State to ratify U. S. Constitution: Delaware, Dec. 7, 1787.

Steam-heated building: Eastern Hotel, Boston, 1845.

Steam railroad: Baltimore & Ohio, 1830.

Strike on record by union: Journeymen Printers, New York, 1776.

Subway: Opened in Boston, 1897.

"Tabloid" picture newspaper: *The Illustrated Daily News* (now *The Daily News*), New York City, 1919.

Vaudeville theater: Gaiety Museum, Boston, 1883.

Woman cabinet member: Frances Perkins; Secretary of Labor, 1933.

Woman candidate for President: Belva Ann Bennett Lockwood, National Equal Rights party, 1884.

Woman doctor of medicine: Elizabeth Blackwell; received M.D. from Geneva Medical College of Western New York, 1849.

Woman elected governor of a state: Mrs. Nellie Tayloe Ross, Wyoming, 1925.

Woman elected to U. S. Senate: Mrs. Hattie Caraway, Arkansas; elected Nov. 1932.

Woman graduate of law school: Mrs. Ada H. Kepley, Union College of Law, Chicago, 1870.

Woman member of U. S. House of Representatives: Jeannette Rankin; elected November, 1916.

Woman member of U. S. Senate: Mrs. Rebecca Latimer Felton of Georgia; appointed Oct. 3, 1922.

Woman suffrage granted: Wyoming Territory, 1869.

Written constitution: *Fundamental Orders of Connecticut*, 1639.

Zoo: Philadelphia, 1874.

Societies and Foundations

AMERICAN BIBLE SOCIETY: Founded 1816. Purpose is to encourage wider circulation and use of Holy Scriptures.

BOY SCOUTS OF AMERICA: Founded 1910. Purpose is to promote character development, citizenship and physical fitness for boys.

CAMP FIRE GIRLS, INC.: Founded 1910. Purpose is to perpetuate spiritual ideals of the home and to stimulate and aid in formation of habits making for health and character.

CARNEGIE CORPORATION OF NEW YORK: Founded 1911 by Andrew Carnegie. Purpose is to advance and diffuse knowledge and understanding among people of U. S. and British Commonwealth. Grants are awarded to colleges and organizations engaged in research. Assets (1954): $174,000,000.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE: Founded 1910 by Andrew Carnegie. Purpose is to work toward international peace through research, publications and other educational activities. Assets (1954): $16,858,868.

COMMONWEALTH FUND: Founded 1918 by Mrs. Stephen V. Harkness. Purpose is to promote health through grants for medical education, research, etc. Assets (1954): $88,000,000.

ELKS, BENEVOLENT AND PROTECTIVE ORDER OF: Founded 1868. Purpose is to practice charity, justice, brotherly love and faithfulness. Charitable expenditures (1954): $6,000,000 for cerebral palsy, blood banks, etc.

FIELD FOUNDATION, INC.: Founded 1940 by Marshall Field. Present purpose is to promote the welfare of children and improve intercultural and interracial relations through grants in the charitable, scientific and educational fields. Assets (1954): Over $14,000,000.

FORD FOUNDATION: Founded 1936 by Henry Ford and his family. Purpose is to devote resources to programs for advancement of peace, education, behavioral sciences, democratic institutions and economic stability. Assets (1954): $493,213,842.

FREEMASONRY: Introduced into American Colonies before 1730. Purpose is the moral and spiritual elevation of its members and, through them, of mankind. Masonic orders in U. S. include: Royal Arch, Knights Templar, Scottish

Rites. Side orders: Order of the Eastern Star, Ancient Arabic Order, Nobles of the Mystic Shrine for North America, Mystic Order of Veiled Prophets of the Enchanted Realm, Ancient Order of Sciots, Tall Cedars of Lebanon, Order of De Molay for boys.

GIRL SCOUTS OF THE U.S.A.: Founded 1912. Purpose is to help girls develop as happy, resourceful individuals.

GUGGENHEIM (JOHN SIMON) MEMORIAL FOUNDATION: Founded 1925. Purpose is to offer fellowships in all fields. Endowment (1954): $41,000,000.

INFANTILE PARALYSIS, NATIONAL FOUNDATION FOR: Founded 1938 by Franklin D. Roosevelt, with Basil O'Connor (volunteer president) and friends. Purpose is to direct and unify fight on every phase of infantile paralysis through research, education, direct help and prevention. Funds raised by "March of Dimes."

KELLOGG FOUNDATION: Founded 1930 by W. K. Kellogg. The Foundation operates by making grants to organizations for the development and implimentation of experimental programs in the health and educational fields. Assets (Aug. 31, 1954): $71,597,387, book value.

KIWANIS INTERNATIONAL: Founded 1915. Purpose is to bring about co-operation among business and professional men and to promote economic and social welfare.

KNIGHTS OF COLUMBUS: Founded 1882. Purpose is to render mutual aid to its sick and needy members; promotes social and intellectual intercourse among its members and conducts educational, charitable and religious work.

KNIGHTS OF PYTHIAS: Founded 1864. Purpose is to promote social and fraternal well-being of its members. Auxiliary bodies: Dramatic Order of Knights Khorassan, Junior Order of Princes of Syracuse, Order of Pythian Sisters.

LIONS CLUBS, INTERNATIONAL ASSOCIATION OF: Founded 1917. Purpose is to recognize community needs and develop means of meeting them directly or by co-operating with other agencies.

NATIONAL GEOGRAPHIC SOCIETY: Founded 1888. Purpose is to increase and diffuse geographic knowledge. Publishes monthly *National Geographic Magazine*.

ODD FELLOWS, INDEPENDENT ORDER OF: Introduced into U. S. in 1819. Purpose is to promote social and friendly relations and to provide benefits for members.

ROCKEFELLER FOUNDATION: Founded 1913. Purpose is to promote well-being of mankind by grants to institutions or agencies in fields of medicine and public health, natural sciences and agriculture, social sciences and humanities. Assets (Dec. 31, 1954): $161,044,933, book value.

ROTARY INTERNATIONAL: Founded 1905. Purpose is to foster the ideal of service in business and community life and promote international understanding.

RUSSELL SAGE FOUNDATION: Founded 1907 by Mrs. Russell Sage. Purpose is improvement of social and living conditions through research. Current value of assets: $19,000,000.

SLOAN FOUNDATION, INC., ALFRED P.: Founded 1934 by Alfred P. Sloan, Jr. Purpose is to increase and spread economic knowledge by means of films, television programs and related materials. The Foundation established the School of Industrial Management at Massachusetts Institute of Technology and the Sloan-Kettering Institute for Cancer Research. Assets (Dec. 1954): $59,369,434.

TWENTIETH CENTURY FUND: Founded 1919 by Edward A. Filene. Purpose is to promote research and public education on current economic and social problems, America's needs and resources, world population and production, foreign trade, farm policies, etc. Assets (Dec. 31, 1954): $12,134,162.

YOUNG MEN'S CHRISTIAN ASSOCIATION: Founded 1844. Purpose is to improve spiritual, social, recreational and physical lives of young people. Endowment (1954): $53,291,900.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION OF THE U. S. A.: Founded 1855 in England, 1858 in U. S. Purpose is to build fellowship of women devoted to pursuit of Christian ideals.

Longest Broadway Runs

Source: Variety.

1.	Life with Father	3,224
2.	Tobacco Road	3,182
3.	Abie's Irish Rose	2,327
4.	Oklahoma!	2,248
5.	South Pacific	1,925
6.	Harvey	1,775
7.	Born Yesterday	1,642
8.	The Voice of the Turtle	1,557
9.	Arsenic and Old Lace	1,444
10.	Helzapoppin	1,404

Top Grossing Films

As of Jan. 5, 1955. *Source: Variety.*

1.	Gone With the Wind	$33,500,000
2.	The Robe	19,000,000
3.	Greatest Show on Earth	12,800,000
4.	From Here to Eternity	12,500,000
5.	This Is Cinerama	12,500,000
6.	White Christmas	12,000,000
7.	Duel in the Sun	11,300,000
8.	Best Years of Our Lives	11,200,000
9.	Quo Vadis	10,500,000
10.	Samson and Delilah	9,000,000

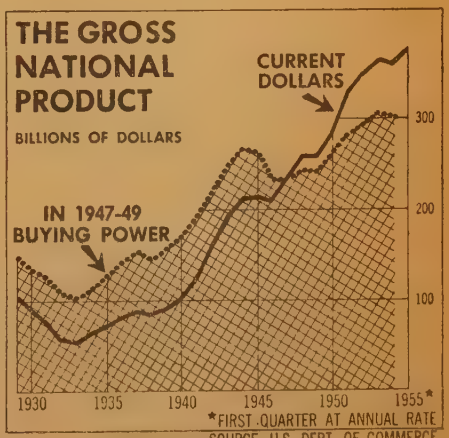
AMERICAN ECONOMY



ALTHOUGH WE account for only 7% of the world's population, we own almost 50% of its wealth. We make, grow, build, sell, buy and use more goods and services than any other country in the world. Of our population of over 165 million people, about 65 million are employed, and almost 33 million are enrolled in our schools (1953–54). Each year we spend more than $236 billion on personal goods and services, of which $79 billion go for food, tobacco and alcohol alone. According to the American Automobile Association, we spend $9.2 billion on vacations every year. Our personal savings amount to almost $18 billion annually, in addition to which 3 out of every 4 families are covered by life insurance. Of our 50 million dwelling units, 55% are occupied by their owners. The millions of acres of fertile farmland produce more food than we can eat. Our productive capacity is the largest in the world: we own 29% of the world's railroad mileage, 76% of its automobiles, 51% of its trucks, 47% of its radios, 42% of its electric power output, 47% of its steel. Our natural resources are tremendous: each year we produce 51% of the world's output of petroleum and about 30% of its coal. Our merchant fleets have replaced Britain's as the rulers of the seas, and we have the greatest volume of foreign trade.

When we total up what we as consumers spend and add to it the expenditures by government and business, we arrive at the Gross National Product (GNP). This figure is one of the best over-all measures of our economic growth and health, since it represents the total output of our economy. The solid line in the Chart opposite shows how much this total output was worth in actual current dollars. The dotted line shows what the value would be if the dollar today bought as much as it did in 1947–49. This line, therefore, represents the physical volume of goods and services we have produced. It shows us that the physical output was roughly 2½ times the figure for the depth of the depression and more than twice what it was in the "good" year of 1929.

The tables and charts which follow contain a great many significant facts about our economic life. Many of these will be useful to people in business and to students. They cover what we produce and how the income is distributed, regionally and by economic classes. They tell us how much we save and how much we buy, what we buy and how much we spend. They contain information on our business organization, on prices, on transportation and construction. Services to business and to consumer are covered as well as figures on government income, spending and debts. This information and much besides, is given in considerable detail and often in chronological tables that show changes and sometimes indicate trends. Employment and strikes are dealt with in some detail. Tables relating to international trade conclude the section. Taken together they should provide a well-rounded picture of our economic life.



LEADING COUNTRIES IN RICHES AND RESOURCES

Source: Encyclopaedia Britannica.

The designation "nd" means that no data are available. In such cases, the relative rank of the nation is estimated.

Mineral and Metal Production

ANTIMONY ORE (thousands of metric tons, 1953)

1.	China	8.0[1]
2.	Mexico	3.7
3.	U. of So. Africa	3.6[1]
4.	Bolivia	2.2[1]
5.	Czechoslovakia	2.0[2]
6.	Algeria	1.9[1]
7.	Yugoslavia	1.8
8.	Turkey	1.4[3]
9.	Canada	.7
10.	Spain	.6

[1] Estimate. [2] 1950 estimate. [3] 1952.

BAUXITE (thousands of metric tons, 1953)

1.	Surinam	3,273
2.	British Guiana	2,149
3.	United States	1,608
4.	Hungary	1,400[1]
5.	France	1,164[2]
6.	U.S.S.R.	1,000[1]
7.	Yugoslavia	462
8.	Greece	331
9.	Italy	270
10.	Malaya	155

[1] Estimate. [2] Including Saar.

CHROMITE (thousands of metric tons, 1953)

1.	U. of So. Africa	724.4
2.	Turkey	690.0
3.	U.S.S.R.	600.0[1]
4.	Philippines	557.1
5.	So. Rhodesia	420.1
6.	Yugoslavia	127.0
7.	New Caledonia	121.1
8.	Cuba	54.0[2]
9.	United States	53.4
10.	Japan	37.6

[1] Estimate. [2] 1952.

COAL (millions of metric tons, 1954)

1.	United States	378.6[1]
2.	U.S.S.R.	320.0[2]
3.	United Kingdom	227.7[3]
4.	West Germany	128.0
5.	Poland	91.3[4]
6.	China	82.0
7.	France	71.2[5]
8.	Czechoslovakia	54.4[2]
9.	Japan	42.7
10.	India	37.4

[1] Including lignite. [2] 1953 estimate, including lignite. [3] Excluding Northern Ireland. [4] Pre-war boundaries. [5] Including Saar.

COPPER (thousands of metric tons, smelter, 1954)

1.	United States	876.6[1]
2.	No. Rhodesia	385.2
3.	Chile	338.4[2]
4.	U.S.S.R.	303.0[3]
5.	West Germany	231.2[1]
6.	Canada	229.2[2]
7.	Belgian Congo	223.8
8.	United Kingdom	213.2[1]
9.	Belgium	153.6[4]
10.	Japan	106.6[4]

[1] Including secondary copper. [2] Refined copper. [3] 1953 estimate. [4] Secondary and refined copper.

GOLD (thousands of fine oz., refinery production, 1953)

1.	U. of So. Africa	11,940.6
2.	U.S.S.R.	9,000.0[1]
3.	Canada	4,068.5
4.	United States	1,970.0
5.	Australia	1,075.1
6.	Gold Coast	731.0
7.	So. Rhodesia	501.1
8.	Mexico	483.5
9.	Philippines	480.6
10.	Colombia	436.0

[1] Estimate.

IRON ORE (millions of metric tons, 1954)

1.	United States	79.2
2.	U.S.S.R.	55.0
3.	France	43.8
4.	United Kingdom	15.8
5.	Sweden	15.4
6.	West Germany	13.0
7.	Canada	6.2
8.	Luxemburg	5.9
9.	Venezuela	5.4
10.	China	5.0

[1] 1953 estimate. [2] Shipments only

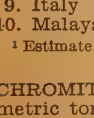
LEAD (thousands of metric tons, refined, 1954)

1.	United States	500.4
2.	U.S.S.R.	270.0
3.	Australia	242.4
4.	Mexico	217.2
5.	Canada	151.2
6.	West Germany	110.3
7.	France	82.2
8.	United Kingdom	77.3
9.	Belgium	71.9
10.	Yugoslavia	66.7

[1] Estimate. [2] Lead content of ore mined. [3] Smelter production. [4] Including secondary lead. [5] Smelter production, mostly secondary.

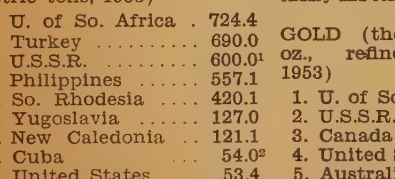
MANGANESE ORE (thousands of metric tons, 1953

1.	U.S.S.R.	3,500.0
2.	India	1,752.7
3.	So. Rhodesia	827.7
4.	Gold Coast	758.0
5.	French Morocco	429.5

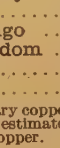


COAL PRODUCTION

MILLION SHORT TONS
1954

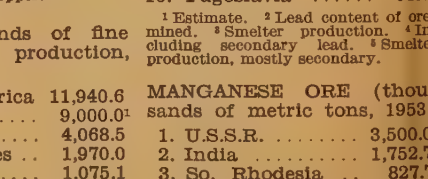


★ EXCLUDING SAKHALIN ESTIMATED BY ECONOMIC COMMISSION FOR EUROPE



OIL PRODUCTION

MILLION SHORT TONS
1954



★ ESTIMATED BY ECONOMIC COMMISSION FOR EUROPE

SOURCE: UNITED N[illegible]

Cuba	372.4[2]
Egypt	287.8
Mexico	244.8
Belgian Congo	216.7
Japan	183.9

Estimate. [2] Exports.

TROLEUM, CRUDE (millions of bbls., 1954)

United States	2,243
Venezuela	692
U.S.S.R.	375[1]
Saudi Arabia	348
Kuwait	342
Iraq	212
Canada	95
Mexico	84
Indonesia	75
Rumania	70[1]

1953 estimate.

G IRON AND FERRO-LOYS (millions of metric s, 1954)

United States	53.2[1]
U.S.S.R.	24.7[2]
West Germany	12.6
United Kingdom	12.1
France	11.4[3]
Japan	4.6
Belgium	4.6
Luxemburg	2.8

RLEY (thousands of metric tons, 1954)

United States	8,058
U.S.S.R.	7,020[1]
China	6,970[2]
Canada	3,837
India	2,765
Japan	2,584
France	2,522
Turkey	2,500
United Kingdom	2,285
Spain	2,135

1950 estimate. [2] 1952; 22 provs.

TTER (thousands of metric tons, factory production, 54)

United States	657
U.S.S.R.	400[1]
West Germany	304
France	280[2]
Australia	187[3]
New Zealand	186[3]
Denmark	181
Canada	142
Sweden	93
Netherlands	82

1953 estimate. [2] 1952. [3] Year ing June 30, 1954.

TTLE (number in millions, various dates)

India	150.3[1]
United States	96.0[2]
Czechoslovakia	2.8[4]
Italy	2.3

[1] Excluding electric furnace production. [2] Pig iron only; 1952 estimate. [3] Including Saar. [4] Pig iron only; 1953 estimate.

SILVER (millions of fine oz., 1953)

1. Mexico	47.9
2. United States	37.7
3. Canada	28.3
4. U.S.S.R.	25.0[1]
5. Peru	19.3
6. Australia	12.5
7. Bolivia	6.1
8. Japan	6.0
9. Belgian Congo	5.0
10. Honduras	4.8

[1] Estimate.

TIN ORE (thousands of metric tons, 1953)

1. Malaya	69.3
2. Bolivia	42.9
3. Indonesia	41.6
4. Belgian Congo	18.8
5. Thailand	12.4
6. U.S.S.R.	nd
7. Nigeria	10.1
8. China	9.9[1]
9. Australia	1.8
10. Burma	1.7

[1] Estimate.

URANIUM

No production data are available. The most important deposits are probably in the Belgian Congo: also the Northwest Territories, Canada; and the Colorado plateau area of Colorado, New Mexico, Arizona and Utah in the United States. Deposits have also been found or reported in Alaska, Australia, Bolivia, Brazil, Bulgaria, Burma, Ceylon, Chile, China (Manchuria), Czechoslovakia, England, Ethiopia, Finland, France, Germany, Greenland, Hungary, India, Indonesia, Iran, Madagascar, Mexico, Mozambique, Nigeria, Norway, Panamá, Philippines, Portugal, Sardinia, South Africa, Spain, Sweden and the U.S.S.R.

ZINC (thousands of metric tons, smelter, 1954)

1. United States	809.4[1]
2. Mexico	223.2[2]
3. Belgium	203.1[1]
4. U.S.S.R.	200.0[3]
5. Canada	194.4
6. West Germany	183.7[1]
7. France	135.7[1]
8. Poland	110.0[4]
9. Australia	106.3
10. Japan	101.4[5]

[1] Including secondary zinc. [2] Exports. [3] Estimate. [4] 1953 estimate. [5] Refined, including secondary.

Agriculture

3. U.S.S.R.	60.0[2]
4. Brazil	55.9[3]
5. Argentina	45.3[1]
6. China	28.8[3]
7. Pakistan	24.1[4]
8. Ethiopia	19.0[4]
9. France	16.3[1]
10. Australia	15.6[5]

[1] 1952. [2] 1955. [3] 1953. [4] 1951–52. [5] 1954.

CHEESE (thousands of metric tons, factory, 1954)

1. United States	614
2. Italy	292[1]
3. France	290[2]
4. U.S.S.R.	nd
5. West Germany	156
6. Netherlands	147
7. Argentina	109[3]
8. New Zealand	105[4]
9. United Kingdom	82[5]
10. East Germany	nd

[1] 1953. [2] 1952. [3] 1953; including farm cheese. [4] Year ending June 30, 1954. [5] Including farm cheese.

COTTON, GINNED (thousands of bales, 500 lb. gross, 1954)

1. U.S.S.R.	16,800[1]
2. United States	13,206
3. India	3,900
4. China	2,950[2]
5. Brazil	1,700
6. Egypt	1,600
7. Mexico	1,500
8. Pakistan	1,200
9. Turkey	600
10. Argentina	600

[1] 1950. [2] Including Manchuria

FORESTS (millions of acres, latest data available)[1]

1. U.S.S.R.	2,275
2. Brazil	975
3. Canada	835
4. United States	825[2]
5. Fr. West Africa	420
6. Fr. Eq. Africa	340[3]
7. Indonesia	300
8. Belgian Congo	250
9. Anglo-Egy. Sudan	225
10. China	210

[1] Of present or potential value. [2] Including Alaska. [3] Including savannah.

HOGS (number in millions, various dates)

1. United States	48.2[1]
2. China	nd
3. Brazil	32.7[2]
4. U.S.S.R.	25.8[3]
5. West Germany	14.5[1]
6. Poland	9.9[3]
7. East Germany	8.2[3]
8. France	7.3[3]
9. United Kingdom	6.2[1]
10. Mexico	6.0[4]

[1] 1954. [2] 1953. [3] 1953–54. [4] 1951.

LAND, ARABLE (millions of ac., including orchards, latest data available, 1955)

1. U.S.S.R.	555
2. United States	455
3. India	325[1]
4. China	250
5. Belgian Congo	120[2]
6. Canada	97
7. Argentina	75
8. Fr. Eq. Africa	74
9. France	52
10. Pakistan	50

[1] Including Kashmir. [2] Including inland water.

MEAT (thousands of metric tons, 1954)[1]

1. United States	10,800
2. France	2,090[2]
3. Argentina	1,950[2]
4. U.S.S.R.	nd
5. West Germany	1,730
6. Brazil	1,360[2]
7. United Kingdom	1,300[2]
8. Poland	1,240[3]
9. Australia	1,170[4]
10. Canada	690[5]

[1] Chiefly beef, veal, mutton, lamb and pork produced in slaughtering houses or packing plants. [2] 1953. [3] 1950. [4] Including farm slaughter; year ending June 30, 1954. [5] Inspected slaughter only.

MILK (thousands of metric tons, 1954)

1. United States	56,020
2. U.S.S.R.	nd
3. France	17,500[1]
4. West Germany	17,050
5. United Kingdom	9,300[2]
6. Canada	7,700
7. Australia	5,600[3]
8. Denmark	5,400
9. Netherlands	5,300[4]
10. New Zealand	5,300

[1] 1953. [2] Milk sold through Milk Marketing Schemes. [3] Year ending June 30, 1954. [4] Delivered by farmers.

OATS (thousands of metric tons, 1954)

1. United States	21,766
2. U.S.S.R.	nd
3. Canada	4,827
4. France	3,565
5. West Germany	2,473
6. United Kingdom	2,455
7. Poland	2,126[1]
8. East Germany	1,140[1]
9. Argentina	960
10. Czechoslovakia	945[2]

[1] 1950. [2] 1951.

POTATOES (thousands of metric tons, 1954)

1. U.S.S.R.	nd
2. West Germany	26,785
3. Poland	26,500[1]
4. France	14,940
5. East Germany	12,618
6. United States	10,344
7. United Kingdom	8,170
8. Czechoslovakia	6,500[1]
9. Netherlands	3,999
10. Spain	3,717

[1] 1951.

RICE (thousands of metric tons, 1954)

1. China	47,000[1]
2. India	39,000[2]
3. Pakistan	12,900
4. Japan	11,300
5. Indonesia	10,900
6. Thailand	7,700
7. Burma	6,300[2]
8. Indochina	6,200[3]
9. South Korea	3,300
10. Philippines	3,200[4]

[1] 1952–53. [2] 1954–55. [3] 1953–54; prior to division. [4] 1953.

RUBBER (thousands of metric tons, 1954)

1. Indonesia	776
2. United States	632[1]
3. Malaya	594
4. U.S.S.R.	248[2]
5. Thailand	119[3]
6. Ceylon	96
7. Canada	88[1]
8. Cambodia, Viêt-Nam	79
9. Liberia	40[3]
10. Sarawak	24

[1] Synthetic only. [2] 1951; synthetic only. [3] Exports.

SHEEP (number in millions)

1. Australia	126
2. U.S.S.R.	93
3. Argentina	54
4. India	40
5. New Zealand	38
6. U. of So. Africa	36
7. United States	30
8. Turkey	26
9. Uruguay	26
10. Spain	26

[1] 1954. [2] 1953. [3] 1952. [4] 19

SUGAR (thousands of me ric tons, raw value, 1954–5

1. Cuba	4,5
2. U.S.S.R.	2,4
3. United States	2,3
4. Brazil	2,2
5. France	1,4
6. India	1,3
7. Philippines	1,2
8. West Germany	1,1
9. Puerto Rico	9
10. Hawaii	8

WHEAT (thousands of me ric tons, 1954)

1. United States	26,1
2. U.S.S.R.	1
3. China	21,7
4. France	10,5
5. Canada	8,1
6. Italy	7,7
7. India	7,3
8. Argentina	6,0
9. Turkey	6,0
10. Australia	5,2

[1] 1952; 22 provinces. [2] 1953– [3] Including spelt.

WOOL (thousands of met tons, greasy basis, 1954)

1. Australia	5
2. New Zealand	1
3. Argentina	1
4. U.S.S.R.	
5. U. of So. Africa	1
6. United States	1
7. Uruguay	
8. United Kingdom	
9. Spain	
10. China	

[1] 1954–55.

Industry, Commerce, Communications

AIRLINES (millions of passenger miles flown, monthly average, 1954)

1. United States	1,712
2. France	140
3. United Kingdom	126
4. U.S.S.R.	nd
5. Canada	84
6. Brazil	83[1]
7. Australia	82[2]
8. Netherlands	70
9. Mexico	65[3]
10. Belgium	25[4]

[1] 6 mos. average. [2] 9 mos. average. [3] 8 mos. average. [4] Sabena lines only; including Belgian Congo.

ALUMINUM (thousands of metric tons, smelter output, 1954)

1. United States	1,596.0
2. U.S.S.R.	575.0
3. Canada	507.6
4. West Germany	197.0
5. France	157.1
6. United Kingdom	117.2
7. Japan	65.6
8. Norway	64.9
9. Italy	57.6
10. Austria	57.2

ELECTRICITY (billions kwh, 1954)

1. United States	47
2. U.S.S.R.	13
3. United Kingdom	8
4. Canada	6
5. West Germany	6
6. Japan	5
7. France	4
8. Italy	3
9. Sweden	3
10. Norway	2

[1] Excluding private commercia eration. [2] 1953. [3] Excluding N ern Ireland. [4] Excluding federa way generation.

EMPLOYMENT INDEX (non-agricultural, 1954; 1948 = 100)[1]

1. West Germany	129[2]
2. Japan	124
3. Luxemburg	119[3]
4. Canada	115
5. New Zealand	114
6. Norway	112
7. Australia	112
8. Philippines	108[4]
9. United States	106
10. United Kingdom	106[5]

[1] Data on U.S.S.R. and satellites not available. [2] 9 mos. [3] Wage earners only. [4] 9 mos.; excluding certain services; 1949 = 100. [5] Excluding Northern Ireland.

EXPORT INDEX (1954; 1948 = 100)[1]

1. Japan	617
2. Netherlands	344
3. Austria	330
4. Israel	289[2]
5. France	243
6. Denmark	225
7. West Germany	223[3]
8. Ireland	192
9. Philippines	179
10. Finland	176

[1] Data on U.S.S.R. and satellites not available. [2] 1949 = 100. [3] 1950 = 100.

IMPORT INDEX (1954; 1948 = 100)[1]

1. Japan	430
2. Austria	288[2]
3. Ethiopia	230
4. Turkey	221
5. Brazil	213
6. Denmark	205
7. Netherlands	196
8. Burma	181
9. Italy	180[3]
10. West Germany	167[4]

[1] Data on U.S.S.R. and satellites not available. [2] Year ending June 30, 1954. [3] Including Trieste (former U.S.-British zone). [4] 1950 = 100.

INDUSTRIAL PRODUCTION INDEX (1954; 1948 = 100)[1]

1. West Germany	282
2. Japan	278
3. Greece	235[2]
4. Austria	210[3]
5. Italy	176
6. Netherlands	160
7. Brazil	156
8. Norway	151
9. Chile	149[2]
10. Ireland	146[4]

[1] Data on U.S.S.R. and satellites not available. [2] Excluding mining. [3] Excluding manufactured gas. [4] Manufacturing and mining only.

MERCHANT FLEETS (millions of gross tons, 1954)[1]

1. United States	26.0[2]
2. United Kingdom	17.2
3. Norway	6.4
4. Panamá	4.0
5. France	3.5
6. Italy	3.5
7. Japan	3.1
8. Netherlands	3.0
9. Sweden	2.5
10. Liberia	2.3

[1] Ships of 1,000 gross tons or more. [2] Not including Great Lakes shipping.

MOTOR VEHICLES (production in thousands, 1954)

1. United States	6,601[1]
2. United Kingdom	1,038
3. West Germany	680
4. France	600
5. U.S.S.R.	400[2]
6. Canada	350
7. Italy	217
8. Japan	61
9. Australia	44[3]
10. Sweden	29[3]

[1] Factory sales. [2] 1952. [3] 1953.

RAILWAYS (millions of metric freight-tons carried, monthly average, 1954)

1. United States	174.5[1]
2. U.S.S.R.	nd
3. United Kingdom	24.0[2]
4. West Germany	21.1
5. France	14.1
6. Poland	nd
7. Japan	12.3[3]
8. Canada	11.8[4]
9. India	10.9[5]
10. Belgium	5.1[6]

[1] Class I railways only. [2] Excluding Northern Ireland. [3] Year ending March 30, 1955. [4] 1953. [5] Year ending March 30, 1955; Class I railways only. [6] Carload lots only.

STEEL, CRUDE (millions of metric tons, 1954)

1. United States	80.1
2. U.S.S.R.	41.0
3. United Kingdom	18.8
4. West Germany	17.4
5. France	13.4[1]
6. Japan	7.7
7. Belgium	5.0
8. Czechoslovakia	4.4
9. Italy	4.2
10. Poland	4.0

[1] Including Saar.

TELEPHONES (number per 100 pop., 1954)

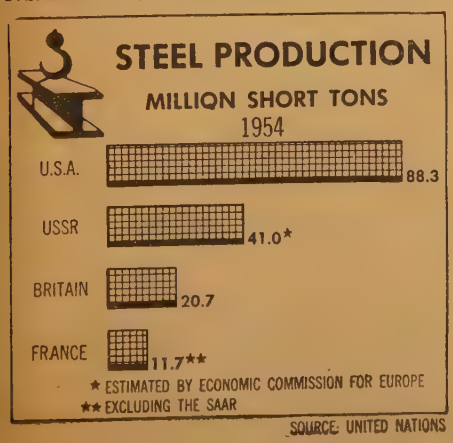
1. United States	31.3
2. Sweden	27.7
3. Canada	24.0
4. Switzerland	21.9
5. New Zealand	21.9
6. Denmark	18.7
7. Australia	16.0
8. Iceland	15.9
9. Norway	15.8[1]
10. United Kingdom	12.1

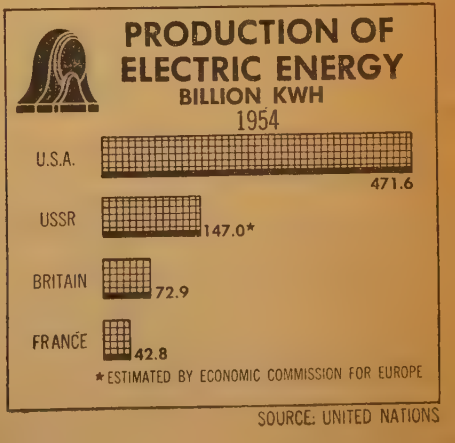
[1] 1953.

Human Resources

BIRTH RATE, HIGHEST ANNUAL (per 1,000 pop., 1954)[1]

1. U.S.S.R.	nd
2. Mexico	45.8
3. China	nd





BIRTH RATE (Contd.)

4. Poland	30.5[2]
5. Rumania	nd
6. Thailand	29.1[3]
7. Canada	28.5[4]
8. India	28.4[5]
9. Yugoslavia	28.4
10. U. of So. Africa	25.5[6]

[1] Larger nations only. All Central American and most of the smaller South American and Caribbean nations have annual birth rates usually exceeding 35.0 (Costa Rica led in 1954 with 52.6). Other smaller nations usually exceeding 30.0 include Burma (49.2 in 1953), Formosa (45.3), Malayan Federation (43.7), Ceylon and Jordan. [2] 1950. [3] 1952. [4] Excluding Yukon and Northwest Territories. [5] Registration area only. [6] European population only.

DEATH RATE, LOWEST ANNUAL (per 1,000 pop., 1954)[1]

1. Iran	6.9[2]
2. Netherlands	7.5
3. Canada	8.1[3]
4. Japan	8.2
5. U. of So. Africa	8.6[4]

DEATH RATE (Contd.)

6. Argentina	8.7[2]
7. Italy	9.0
8. Spain	9.1
9. Australia	9.1[5]
10. United States	9.2

[1] Following smaller countries not included in main table: Israel, 6.4 (Jewish population only); Puerto Rico, 7.6; Panamá, 7.7; Norway, 8.4; Dominican Republic, 8.8; New Zealand, 9.0 (excluding Maoris); Denmark, 9.1; Finland, 9.1. [2] 1953. [3] Excluding Yukon and Northwest Territories. [4] European population only. [5] Excluding full-blooded aborigines.

ARMED FORCES (army, navy, air; strength in thousands, 1954)[1]

1. China	5,000[2]
2. U.S.S.R.	4,800
3. United States	2,691[3]
4. United Kingdom	823[4]
5. Yugoslavia	650
6. South Korea	650
7. Poland	625[5]
8. France	585

ARMED FORCES (Contd.)

9. India	nd
10. Spain	460

[1] Estimates. [2] Communist China (not including 6,000,000–10,000,000 in militia); Nationalist forces on Formosa estimated at 600,000. [3] June 30, 1955. [4] April 1, 1955. [5] Including about 100,000 security and frontier defense troops.

NAVIES (number of warships, 1954)[1]

1. United States	573
2. U.S.S.R.	168
3. United Kingdom	130
4. Spain	30[2]
5. France	29
6. Argentina	23
7. Sweden	17
8. Canada	14
9. Netherlands	12
10. Brazil	11

[1] Excluding submarines, frigates and escort types; estimated number of submarines, Dec. 1954: U.S.S.R., 400; U. S., 200; United Kingdom, 57; Sweden, 21; France, 14; Turkey, 12. [2] Including 24 destroyers.

Gross National Product or Expenditure

(in millions of dollars)

Source: U. S. Department of Commerce.

Item	1929	1933	1939	1945	1949	1951	1954	1955*
Gross national product	104,436	55,964	85,227	213,558	257,325	328,232	360,474	375,300
Personal consumption expenditures	78,952	46,392	64,641	121,699	177,609	208,342	236,532	245,800
Durable goods	9,212	3,469	5,686	8,105	22,214	27,148	29,277	34,400
Nondurable goods	37,677	22,251	33,985	73,222	98,741	111,054	120,894	122,400
Services	32,063	20,672	24,970	40,372	56,654	70,140	86,361	89,000
Gross private domestic investment	16,231	1,391	6,661	10,430	41,176	56,864	47,248	54,100
New construction	8,707	1,431	3,960	3,833	17,904	23,332	27,778	31,200
Producers' durable equipment	5,850	1,589	3,644	7,654	19,110	23,177	22,322	21,500
Change in business inventories	1,674	−1,629	−943	−1,057	4,162	10,355	−2,852	1,500
Net foreign investment	771	150	1,109	−1,438	1,956	227	−266	−400
Government purchases	8,482	8,031	12,816	82,867	36,584	62,799	76,960	75,800
Federal	1,311	2,018	5,280	75,923	21,019	40,995	49,179	46,400
National security	1,344	2,022	5,286	.....	15,984	37,260	43,227	41,200†
Other					5,570	4,154	6,311	.....
Less: Government sales	33	4	6	2,158	535	419	359	.....
State and local	7,171	6,013	7,536	8,071	15,565	21,804	27,781	29,400

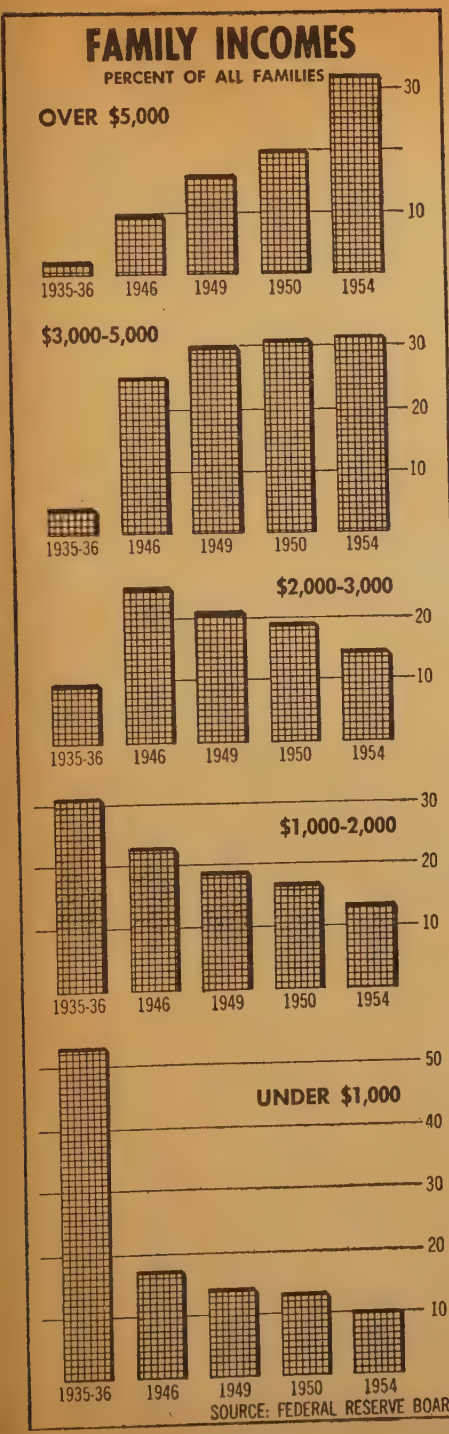
* First quarter at annual rate, seasonally adjusted; detail will not necessarily add to totals because of rounding.
† Less government sales.

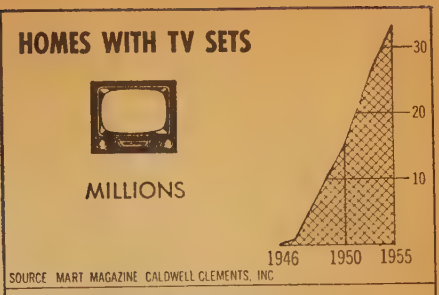
National Income by Distributive Shares

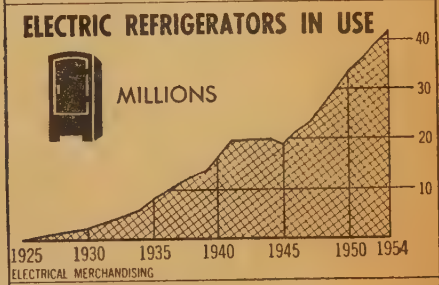
(in millions of dollars)

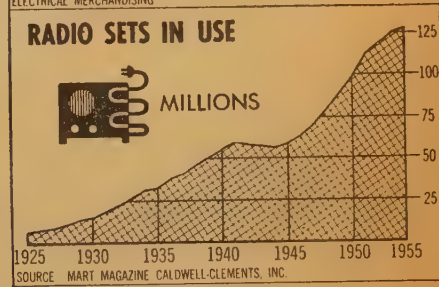
Source: U. S. Department of Commerce.

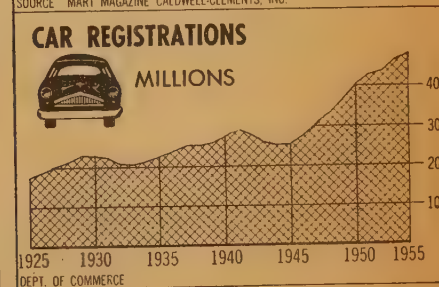
Type of share	1929	1933	1939	1945	1949	1951	1953	1954	1954 % of total
National income	87,814	40,159	72,753	181,248	221,641	277,041	305,002	299,673	100.0
Compensation of employees	51,085	29,539	48,108	123,181	140,927	180,420	209,061	207,901	69.4
Wages and salaries	50,423	28,997	45,941	117,577	135,172	170,881	197,980	196,244	65.5
Supplements to wages and salaries	662	542	2,167	5,604	5,755	9,539	11,081	11,657	3.9
Income of unincorporated enterprises and inventory valuation adjustment	14,759	5,599	11,610	30,835	38,389	40,809	38,444	37,876	12.6
Business and professional	8,791	3,166	7,293	19,011	21,649	24,791	26,215	25,876	8.6
Farm	5,968	2,433	4,317	11,824	16,740	16,018	12,229	12,000	4.0
Rental income of persons	5,425	1,971	2,742	5,634	7,198	9,129	10,596	10,539	3.5
Corporate profits and inventory valuation adjustment	10,100	−1,992	5,689	18,413	30,619	39,913	38,466	33,815	11.3
Net interest	6,445	5,042	4,604	3,185	4,508	6,770	8,435	9,542	3.2

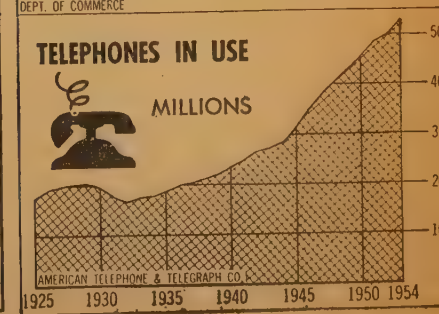

FAMILY INCOMES
PERCENT OF ALL FAMILIES
OVER $5,000
$3,000-5,000
$2,000-3,000
$1,000-2,000
UNDER $1,000
1935-36
1946
1949
1950
1954
SOURCE: FEDERAL RESERVE BOARD


HOMES WITH TV SETS
MILLIONS
1946
1950
1955
SOURCE MART MAGAZINE CALDWELL CLEMENTS, INC


ELECTRIC REFRIGERATORS IN USE
MILLIONS
1925
1930
1935
1940
1945
1950
1954
ELECTRICAL MERCHANDISING


RADIO SETS IN USE
MILLIONS
1925
1930
1935
1940
1945
1950
1955
SOURCE MART MAGAZINE CALDWELL-CLEMENTS, INC.

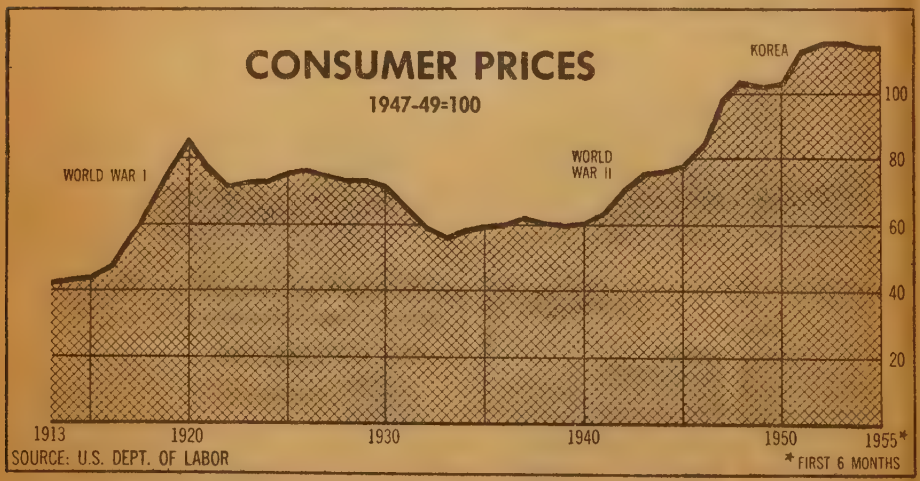

CAR REGISTRATIONS
MILLIONS
1925
1930
1935
1940
1945
1950
1955
DEPT. OF COMMERCE


TELEPHONES IN USE
MILLIONS
1925
1930
1935
1940
1945
1950
1954
AMERICAN TELEPHONE & TELEGRAPH CO.

How Consumers Spend Their Dollar

Source: U. S. Department of Commerce.

Group	(in millions of dollars) 1929	1932	1939	1945	1947	1949	1950	1953	1954	1954 % of total
Food, alcohol and tobacco	21,374	12,719	21,072	45,924	60,483	63,145	65,606	77,197	78,586	33.1
Clothing, accessories, and jewelry	11,018	5,973	8,299	20,247	23,144	23,007	23,062	24,634	24,545	10.4
Personal care	1,116	817	1,004	2,077	2,261	2,216	2,303	2,650	2,759	1.2
Housing	11,421	8,964	8,940	12,205	14,603	18,080	20,210	27,869	27,758	12.6
Household operation	10,509	6,675	9,461	14,865	22,717	23,540	26,412	30,228	30,776	13.0
Medical care and death expenses	3,620	2,575	3,386	5,902	7,812	8,885	9,518	11,178	11,756	5.0
Personal business	5,221	3,111	3,725	4,787	6,232	7,576	8,706	10,572	11,379	4.8
Transportation	7,496	3,924	6,250	6,694	14,876	19,274	22,570	27,009	26,928	11.4
Recreation	4,327	2,439	3,446	6,314	9,733	10,276	11,347	11,832	12,220	5.2
Private education and research	664	571	628	871	1,316	1,663	1,794	2,447	2,605	1.1
Religious and welfare activities	1,196	973	938	1,572	1,589	1,762	1,859	2,978	3,202	1.4
Foreign travel and remittances—net	799	467	317	1,621	804	1,164	1,163	1,984	2,018	.8
Total consumer outlay	78,761	49,208	67,466	123,079	165,570	180,588	194,550	230,578	236,532	100.0

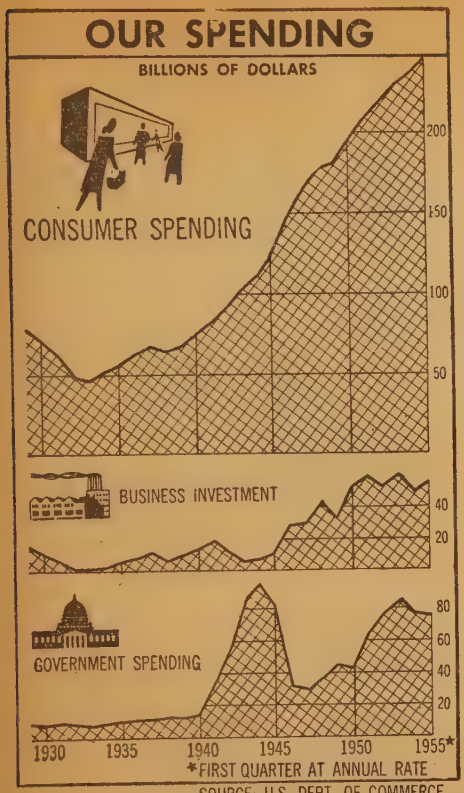


Consumers' Price Index (1947–49 = 100)

Source: U. S. Bureau of Labor Statistics.

Items	1947	1948	1951	1953	1954	1955*
All items	95.5	102.8	111.0	114.4	114.8	114.3
Total food	95.9	104.1	112.6	112.8	112.6	110.9
Apparel	97.1	103.5	106.9	104.8	104.3	103.3
Housing total	95.0	101.7	112.4	117.7	119.1	119.5
Rent	94.4	100.7	113.1	124.1	128.5	129.9
Gas and electricity	97.6	100.0	103.1	106.6	107.9	110.2
Solid fuels and fuel oil	88.8	104.4	116.4	123.9	123.5	125.3
Housefurnishings	97.2	103.2	111.2	107.9	106.1	104.4
Household operation	97.2	102.6	109.0	115.3	117.4	118.0
Transportation	90.6	100.9	118.4	129.7	128.0	126.6
Medical care	94.9	100.9	111.1	121.3	125.2	127.0
Personal care	97.6	101.3	110.5	112.8	113.4	111.7
Reading and recreation	95.5	100.4	106.5	108.0	107.0	106.6
Other goods and services	96.1	100.5	109.7	118.2	120.1	119.8

* Average of first 5 months.



SOURCE: U.S. DEPT. OF COMMERCE

Consumer Credit

(in millions of dollars)

Source: Federal Reserve Board.

End of year	Total	Installment credit	Non-installment credit*	Charge accounts
1929	6,444	3,151	1,691	1,602
1932	3,567	1,521	1,026	1,020
1935	4,911	2,694	1,034	1,183
1939	7,222	4,503	1,305	1,414
1940	8,338	5,514	1,353	1,471
1943	4,901	2,136	1,325	1,440
1944	5,665	2,462	1,591	1,612
1946	8,384	4,172	2,136	2,076
1949	17,104	11,516	2,908	2,680
1950	20,813	14,490	3,317	3,006
1952	25,827	18,684	3,801	3,342
1953	28,896	21,807	3,840	3,249
1954	30,125	22,467	4,140	3,518
1955†	31,568	24,149	4,408	3,011

* Single-payment loans and service credit. † End of May, preliminary.

Number of Nonfarm Houses Built*

Source: U. S. Bureau of Labor Statistics, National Bureau of Economic Research.

Year	Houses	Year	Houses
1900	204,000	1944	169,000
1910	475,000	1945	226,000
1920	247,000	1949	1,025,100
1929	509,000	1950	1,396,000
1933	93,000	1951	1,091,300
1937	336,000	1952	1,127,000
1939	515,000	1953	1,103,800
1943	350,000	1954	1,220,400

* Data represents new dwelling units started. . .

Minutes of Working Time Required for Purchase Per Pound of Selected Foods

Source: U. S. Bureau of Labor Statistics.

Food	United States Sept. 1951	France (Paris) Oct. 1951	Germany Sept. 1951	Ireland Aug. 1951	Italy Sept. 1951	Norway Aug. 1951	Switzerland Oct. 1951	U.S.S.R. (Moscow Area) Apr. 1952
Flour, wheat	4	20	15	6	15	6	18	27
Macaroni	8	...	...	...	20	17	...	45
Rice	6	33	...	...	17	17	16	91
Bread	6	9	12	8	13	7	7	14
Beef, average	31	126	...	72	128	58	...	132
Pork chops	32	91	87	68	124[1]	59[1]	97	220[1]
Veal, average	48	120	94	...	...	48	100	...
Lamb, leg	31	133	...	76	...	61	85	140
Fish (fresh, frozen)	18	33	31	42	65	18	...	135
Butter	30	135	115	83	162	63	117	270
Cheese	22	104	...	60	109	38	35	...
Milk, fresh[2]	8	16	15	16	20	9	12	42
Eggs[3]	32	118	125	109	126	82	97	187
Fresh apples	4	19	16	...	...	...	9	89
Cabbage	2	7	...	...	...	5	6	37
Carrots	5	9	8	...	...	12	7	9
Potatoes	2	3	3	5	5	3	4	9
Coffee	32	175	585	...	250	68	122	531
Tea	49	...	...	74	...	228	188	960
Oleomargarine	13	64	39	55	...	19	...	152
Sugar	4	21	21	9	37	7	14	110

[1] Pork, average. [2] Quart. [3] Dozen.

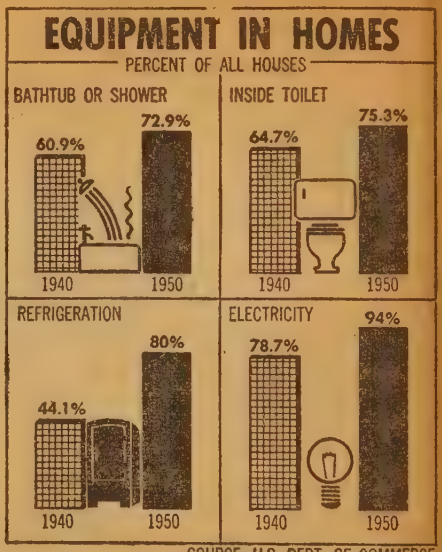
U. S. Consumption of Principal Foods*

(in pounds per capita)

Source: U. S. Department of Agriculture.

Foods	1935–39 avg.	1947–49 avg.	1955[3]
Red meats	125.3	146.4	160.0
Poultry meats	15.3	21.7	27.7
Eggs[1]	296.0	380.0	410.0
Fluid milk and cream	330.0	359.0	353.0
Cheese	5.5	6.9	7.9
Butter	16.8	10.5	9.3
Margarine	2.8	5.5	8.3
Fats and oils[2]	28.9	28.9	31.2
Fresh fruits	137.1	130.3	102.0
Processed fruits[4]	25.1	41.5	40.4[5]
Fresh vegetables	139.0	150.0	144.0
Processed vegs.[4]	30.0	41.4	44.1
Potatoes, sweetpots.	149.3	124.3	112.0
Sugar	96.7	93.5	95.0
Corn products	37.4	33.5	30.3
Wheat flour	157.0	135.0	121.0
Coffee	13.9	18.0	15.4
Cocoa	4.3	4.0	4.0

[1] Number, not pounds. [2] Excludes butter and margarine. [3] Preliminary estimates. [4] Pack year. [5] Excluding dried fruits. * Civilian consumption only.



SOURCE: U.S. DEPT. OF COMMERCE

Electric Energy Output of Utilities*

(in millions of kilowatt hours)

Source: Federal Power Commission.

Year	Total	Ownership						Source of energy	
		Privately owned	Publicly owned†	Municipal	Federal	Co-operatives, power districts, state projects	% Public to total	Fuels	Fuels as % of total
1920	39,405	37,716	1,689	1,373	58	94	4.3	23,644	60.0
1929	92,180	87,514	4,667	3,498	300	451	5.1	59,533	64.6
1933	81,740	76,668	5,072	3,583	458	654	6.2	48,283	59.1
1939	127,642	115,078	12,564	5,688	5,476	944	9.8	84,078	65.9
1943	217,759	180,247	37,511	9,223	24,485	3,156	17.2	144,127	66.2
1951	370,673	301,845	68,828	17,617	44,120	6,204	18.6	270,922	73.1
1953	442,665	354,272	88,393	21,625	58,064	8,704	20.0	337,431	76.2
1954	471,686	370,970	100,716	23,505	67,804	9,407	21.4	364,618	77.3

* Output by industrial establishments was as follows (in millions of kilowatt hours): 1939—33,667; 1943—49,781; 1951—62,685; 1953—71,505; 1954—72,959. † Includes non-central stations.

Financial Condition of U. S. Life Insurance Companies

(in millions of dollars)

Source: Spectator Yearbook and Institute of Life Insurance.

Year	Assets (admitted) Dec. 31	Total income	Premium income	Payment to policyholders*	Year	Assets (admitted) Dec. 31	Total income	Premium income	Payment to policyholders*
1910	3,876	781	593	387	1948	55,512	9,751	7,157	3,237
1920	7,320	1,764	1,381	745	1950	64,020	11,337	8,189	3,731
1929	17,482	4,337	3,343	1,962	1951	68,278	12,012	9,040	3,985
1932	20,754	4,653	3,495	3,087	1952	73,375	13,076	9,883	4,147
1939	29,243	5,453	3,776	2,642	1954	84,486	15,280	11,563	4,947
1945	44,797	7,674	5,159	2,667					

* Beginning 1943, data include payments to U. S. residents by domestic and foreign companies.

Industrial Production Indexes, by Groups

(1947–49 average = 100)

Source: Board of Governors of the Federal Reserve System.

Industry	1950	1951	1954	1955*
Durable manufactures	116	128	137	153
Ferrous metals	114	129	108†	140†
Nonferrous metals	116	116		
Fabricated metal products	115	122	123	134
Machinery	114	130	142	151
Transportation equipment	120	135	175	201
Instruments and related products	114	128	140	142
Stone, clay and glass products	118	131	131	150
Lumber and products	113	113	115	128
Furniture and misc.	117	116	121	131
Nondurable manufactures	111	114	116	127
Textile mill products	111	107	95	109
Apparel and allied products	108	105	105	117
Rubber products	119	119	115	147
Leather and products	101	94	95	107
Paper and allied products	118	125	134	156
Printing and publishing	111	113	120	125
Chemicals and allied products	121	136	148	167
Petroleum and coal products	110	122	125	136
Food and beverage products	103	105	106	110
Tobacco manufactures	101	107	103	103
Total manufactures	113	121	127	140
Minerals	105	115	111	121
Fuels	103	114	113	122
Metals, stone and earth	111	121	90	110
Total industrial production	112	120	125	138

* May 1955. † All primary metal manufacturing.

Business Population

(in thousands of concerns)

Source: U. S. Department of Commerce, Dun & Bradstreet.

Item	1929	1933	1941	1943	1946	1947	1949	1951	1953	1954
Total operating businesses[1]	3,029.0	2,782.1	3,269.6	2,905.1	3,487.2	3,783.2	4,000.0	4,108.5	4,205.7	4,196.7
Manufacturing	257.0	166.8	236.6	244.9	285.9	312.0	320.5	327.2	326.6	317.6
Wholesale trade	148.1	141.8	194.4	172.6	229.2	250.9	261.8	273.1	285.0	287.1
Retail trade	1,327.0	1,291.2	1,558.3	1,329.1	1,555.4	1,685.9	1,794.3	1,834.0	1,859.2	1,850.7
Transportation, communications, public utilities	119.5	107.6	147.2	129.4	162.2	173.2	179.1	182.7	184.1	178.8
Finance, insurance & real estate	316.2	281.7	295.1	286.2	320.3	321.9	323.0	329.9	338.2	340.2
Service industries	590.9	574.9	614.4	553.6	656.5	711.5	736.8	735.5	741.9	742.3
Mining & quarrying	36.3	32.8	37.2	32.1	33.8	35.2	37.0	37.4	38.3	38.8
Contract construction	233.8	185.4	186.4	157.2	243.8	292.6	347.5	388.6	432.3	441.3
New entrants[2]	(3)	(3)	290.0	146.0	617.4	460.8	331.1	363.2	340.5	330.7[5]
Discontinued businesses[2]	(3)	(3)	270.7	337.0	208.7	239.2	306.5	309.3	334.0	334.3[6]
Commercial & industrial failures[4]	22.9	19.9	11.8	3.2	1.1	3.5	9.2	8.1	8.9	11.1

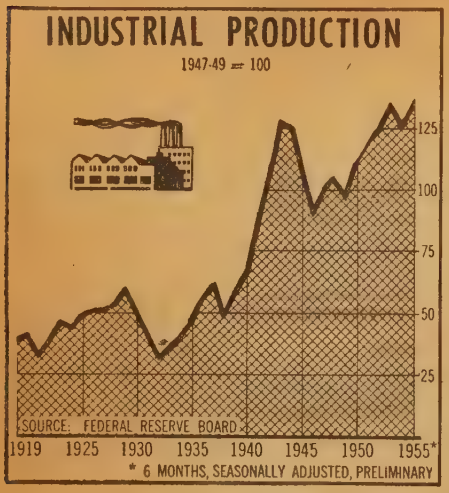
[1] 1929–51, annual average; 1953–54, as of June 30. [2] Annual totals. [3] Not available. [4] Closures resulting in a known loss to creditors. [5] Based on incomplete data.

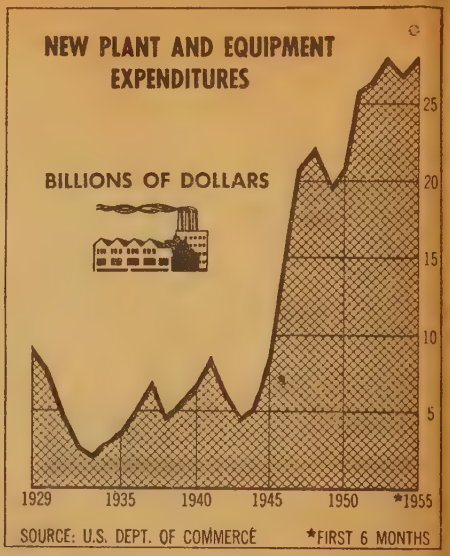
Fuel Production

Source: U. S. Dept. of Interior, U. S. Dept. of Commerce, and American Gas Association.

Year	Coke, in thousands of short tons	Anthracite coal, in thousands of short tons	Bituminous coal, in thousands of short tons	Natural gas, in millions of therms (produced and marketed)[1]	Manufactured gas, in millions of therms[2]	Crude petroleum, in thousands of 42-gal. barrels
1929	59,884	73,828	534,989	20,490[3]	2,070[3]	1,007,323
1933	27,589	49,541	333,631	16,640[3]	1,820	905,656
1939	44,327	51,487	394,855	26,220	1,830	1,264,962
1941	65,187	56,368	514,149	29,780	1,990	1,402,228
1945	67,308	54,934	577,617	41,960	2,600	1,713,655
1949	63,637	42,702	437,868	55,770	2,680	1,841,940
1951	79,331	42,670	533,645	76,660	2,435	2,244,529
1952	68,232	39,361	465,312	86,140	2,009	2,291,997
1953	78,467	30,023	453,000	90,270	1,756	2,359,998
1954	64,327	27,118	389,514	93,170[4]	1,494	2,308,110

[1] Includes all natural gas in sales of natural gas mixed with manufactured gas. [2] Includes all manufactured gas products produced and purchased by gas utilities. [3] Estimated. [4] Preliminary.





New Construction Activity, by Type

(in millions of dollars)

Source: U. S. Department of Commerce and U. S. Department of Labor.

Activity	1929	1938	1940	1945	1949	1953	1954
Total new construction activity	10,793	2,879	8,682	5,633	22,789	35,271	37,577
New private construction activity	8,307	1,231	5,504	3,235	16,384	23,877	25,768
Residential (nonfarm)	3,625	470	2,985	1,100	8,267	11,930	13,496
New dwelling units	3,040	290	2,560	720	7,257	10,555	12,070
Additions and alterations	340	145	335	340	825	1,108	1,130
Nonhousekeeping	245	35	90	40	185	267	296
Nonresidential building, except farm and public utility	2,694	406	1,025	1,020	3,228	5,680	6,250
Industrial	949	176	442	642	972	2,229	2,030
Commercial[1]	1,135	130	348	203	1,027	1,791	2,192
Other	610	100	235	175	1,229	1,660	2,008
Public utility	1,578	261	771	827	3,323	4,146	4,341
Railroad	510	94	167	264	352	442	353
Telephone and telegraph	354	45	122	117	533	615	655
Other public utility	714	115	482	446	2,438	3,359	3,333
Farm construction	307	49	240	267	1,488	1,731	1,560
All other private	103	45	33	21	78	120	121
New public construction activity	2,486	1,648	3,628	2,398	6,405	11,394	11,809
Residential	...	...	200	80	359	556	336
Nonresidential building	659	230	615	937	2,068	4,346	4,641
Industrial	...	2	164	755	177	1,771	1,506
Educational	389	52	156	59	934	1,728	2,134
Hospital and institutional	101	49	54	85	477	353	365
Other	169	127	241	38	480	500	636
Military and Naval	19	36	385	690	137	1,307	1,030
Highway	1,266	847	1,302	398	2,131	3,160	3,750
Sewer and water	253	95	338	97	619	883	982
Conservation and development	115	359	528	130	793	830	704
All other[2]	23	16	260	66	298	112	148

[1] Warehouses, office and loft buildings; stores, restaurants and garages. [2] Miscellaneous public service enterprises and all Federal not included elsewhere.

Metals Production (in short tons)

Source: American Iron & Steel Institute, *Iron Age*, American Zinc Institute, American Bureau of Metal Statistics and U. S. Bureau of Mines.

Year	Pig iron and ferro-alloys	Steel ingots and castings	Rolled iron and steel products: Total	Rolled iron and steel products: Plates and sheets	Aluminum (primary)	Copper (smelter output from domestic ore)	Zinc (slab smelter output, all grades)*	Refined lead (from domestic ore; antimonial lead excluded)
1929	47,727,661	63,205,490	45,997,746	13,928,670	113,986	1,001,432	631,601	672,498
1932	9,835,227	15,322,901	11,705,219	3,956,505	52,444	272,005	213,531	255,337
1939	35,677,097	52,798,714	39,067,553	13,931,919	163,545	712,675	538,198	420,967
1941	56,686,604	82,839,259	62,324,187	20,293,071	309,067	966,072	863,955	470,517
1943	62,769,947	88,836,512	63,292,673	22,543,040	920,179	1,092,939	971,873	406,544
1945	54,919,029	79,701,648	59,811,669	19,314,316	495,060	722,894	799,520	356,535
1948	61,911,559	88,640,470	69,191,952	25,694,480	623,456	834,813	850,105	339,413
1949	54,916,785	77,978,176	60,882,387	23,470,886	603,462	752,750	870,113	404,449
1951	72,448,543	105,199,848	81,911,320	31,869,683	836,881	928,330	931,833	448,473
1952	63,353,955	93,168,039	71,348,528	27,251,852	937,331	925,377	961,430	532,778
1953	77,250,168	111,609,719	85,943,724	35,699,732	1,252,013	924,610†	971,191	533,883
1954	59,806,242	88,311,652	68,464,640	28,406,447	1,460,564	836,251	868,242	551,618

* From 1940 includes both foreign and domestic ores. † Preliminary.

Average Earnings and Hours Worked Per Week in Manufacturing Industries

Source: U. S. Department of Labor.

Industry	1947 Earnings	1947 Hours worked	1949 Earnings	1949 Hours worked	1951 Earnings	1951 Hours worked	1953 Earnings	1953 Hours worked	1954 Earnings	1954 Hours worked	1955[2] Earnings	1955[2] Hours worked
All manufacturing[1]	$54.14	40.1	$54.92	39.2	$64.71	40.7	$71.69	40.5	$71.86	39.7	$74.65	40.4
Durable goods	57.11	40.5	58.03	39.5	69.47	41.6	77.23	41.3	77.18	40.2	80.81	41.0
Primary metal industries	61.03	40.1	60.78	38.3	75.12	41.5	84.25	40.9	84.86	40.8	88.36	41.9
Iron and steel foundries	58.45	40.7	55.09	37.2	71.66	42.4	76.33	40.6	74.30	38.9	81.52	41.3
Nonferrous foundries	59.96	40.0	60.92	39.0	73.74	41.9	80.97	41.1	80.60	39.9	84.50	40.6
Fabricated metal products	56.68	40.6	57.82	39.6	68.81	41.7	77.15	41.7	77.33	40.7	80.39	41.2
Hand tools	56.07	40.9	54.54	38.6	69.70	42.5	74.70	41.5	73.26	39.6	75.65	40.4
Hardware	54.26	40.4	56.28	39.3	66.49	41.3	75.89	41.7	77.52	40.8	83.00	42.8
Structural metal products	58.17	41.2	59.90	40.5	71.49	42.3	80.75	42.5	79.52	41.2	78.93	40.4
Electrical machinery	55.66	40.1	56.96	39.5	64.84	41.3	71.81	40.8	72.44	39.8	74.99	40.4
Machinery, except electrical	60.52	41.2	60.44	39.5	76.38	43.4	82.91	42.3	81.61	40.6	84.21	41.2
Transportation equipment	61.58	39.0	64.95	39.2	75.67	40.9	85.28	41.2	86.67	40.5	93.06	42.3
Automobiles	61.86	38.4	65.97	38.9	75.45	39.5	87.95	41.1	89.32	40.6	98.21	43.6
Lumber and wood products	51.38	41.5	51.72	40.6	59 98	40.8	65.93	40.7	66.18	40.6	66.40	40.7
Furniture & fixtures	48.99	41.1	49.48	40.1	57.27	41.2	63.14	41.0	62.96	40.1	64.95	40.8
Stone, clay and glass	53.46	40.9	54.45	39.8	63.91	41.5	70.35	40.9	71.86	40.6	74.13	40.9
Nondurable goods	50.61	39.6	51.41	38.8	58.46	39.5	63.60	39.5	64.74	39.0	66.25	39.4
Textile—mill products	45.59	39.2	44.83	37.7	51.60	38.8	53.57	39.1	52.09	38.3	54.35	39.6
Cotton, silk, synthetic fibers	44.36	39.4	42.89	37.2	50.70	39.3	51.09	39.3	49.28	38.2	51.61	39.6
Woolen and worsted goods	52.45	40.1	51.19	38.9	57.87	39.1	61.93	39.7	61.05	39.9	61.77	41.2
Apparel and other finished textiles	42.79	36.2	41.89	35.8	46.31	35.9	48.41	36.4	48.06	35.6	48.63	36.4
Leather	41.66	37.2	41.61	36.6	46.86	36.9	51.65	37.7	50.92	36.9	52.84	38.0
Food	51.87	42.0	53.58	41.5	59.92	41.9	66.33	41.2	68.47	41.0	70.11	40.5
Tobacco	36.50	38.1	37.25	37.1	43.51	38.5	47.37	38.2	49.01	37.7	50.70	37.4
Paper	55.25	42.8	55.96	41.7	65.51	43.1	72.67	43.0	74.03	42.3	76.40	42.5
Printing and publishing	66.73	39.3	70.28	38.7	77.21	38.8	85.58	38.9	87.17	38.4	89.71	38.5
Chemicals	56.23	41.5	58.63	41.0	67.81	41.6	75.58	41.3	78.50	41.1	80.49	41.2
Petroleum and coal	69.23	40.7	72.36	40.4	80.98	40.9	90.17	40.8	92.62	40.8	93.34	40.6
Rubber	56.78	39.0	57.79	38.3	68.61	40.6	77.78	40.3	78.21	39.7	84.46	41.4

[1] Average weekly earnings in 1919 = $23.29, 1929 = $26.40, 1932 = $17.86, 1939 = $24.23. Average hours worked per week in 1914 = 51.0, 1919 = 47.8, 1929 = 45.7, 1932 = 38.2, 1939 = 37.7. [2] Average of first four months.

Average Earnings and Hours Worked Per Week in Nonmanufacturing Industries

Source: U. S. Department of Labor.

Industry	1947 Earnings	1947 Hours worked	1949 Earnings	1949 Hours worked	1951 Earnings	1951 Hours worked	1954 Earnings	1954 Hours worked	1955* Earnings	1955* Hours worked
Anthracite mining	$62.77	37.7	$56.78	30.2	$66.66	30.3	$75.60	30.0	$81.65	32.2
Bituminous coal mining	66.59	40.7	63.28	32.6	77.79	35.2	80.85	32.6	92.91	37.3
Metalliferous mining	54.63	41.8	61.55	40.9	74.56	43.6	84.46	40.8	88.36	41.9
Quarrying and nonmetallic mining	50.54	45.0	56.38	43.3	67.05	45.0	77.44	44.0	76.35	43.0
Telephone	44.77	37.4	51.78	38.5	58.26	39.1	68.46	38.9	70.63	39.1
Telegraph	53.56	44.6	62.85	44.7	68.24	44.6	76.13	41.6	77.34	41.5
Gas and electric utilities	56.69	41.9	63.99	41.5	72.49	41.9	83.01	41.3	84.30	40.9
Street railways and busses	57.14	46.8	64.61	44.9	72.23	46.3	78.19	43.2	79.57	42.9
Wholesale trade	51.99	41.0	57.55	40.7	64.31	40.7	73.93	40.4	75.56	40.4
Retail trade	40.66	40.3	45.93	40.4	50.65	40.2	56.84	39.2	57.52	38.8
Hotels (year-round)	29.36	45.2	32.84	44.2	35.42	43.2	40.13	41.8	40.81	41.8
Laundries	32.71	42.6	34.98	41.5	37.81	41.1	40.10	40.1	40.67	40.1
Dyeing and cleaning	38.30	41.9	40.71	41.2	43.99	41.5	47.12	39.6	46.50	39.1
Private building construction	63.13	37.6	70.95	36.7	81.47	37.2	94.12	36.2	93.13	35.3

* First 4 months average.

Termination of Strikes in 1954

Source: U. S. Bureau of Labor Statistics.

Methods of termination	Strikes (per cent of total)	Workers involved (per cent of total)
Agreement of parties reached:		
Directly	45.9	38.0
Assisted by non-gov't agencies & mediators	.5	.6
Assisted by government agencies	30.7	47.6
Terminated without formal settlement	19.6	12.9
Employers discontinued business	1.3	.5
Not reported	1.9	.4

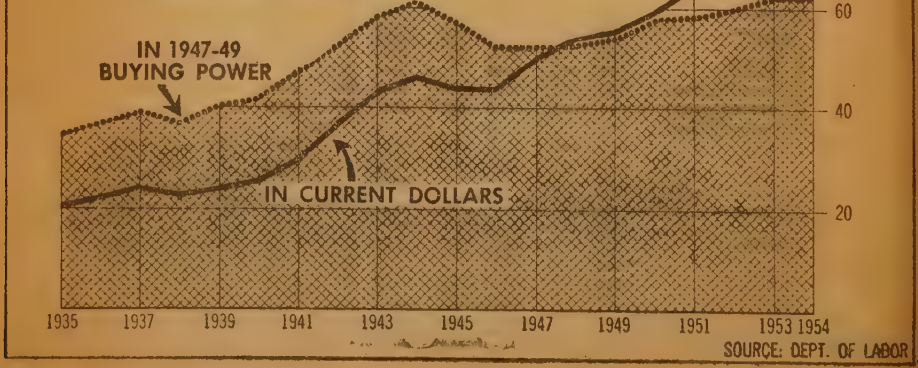
Monthly Average Railroad Carloadings

(in thousands of cars)

Source: Association of American Railroads.

Year	Total	Year	Total
1920	3,760	1945	3,492
1925	4,269	1947	3,708
1929	4,402	1948	3,643
1932	2,348	1949	2,992
1939	2,826	1950	3,242
1940	3,030	1951	3,437
1941	3,524	1952	3,165
1942	3,564	1953	3,192
1943	3,535	1954	2,822
1944	3,617	1955*	2,972

* First 6 months.

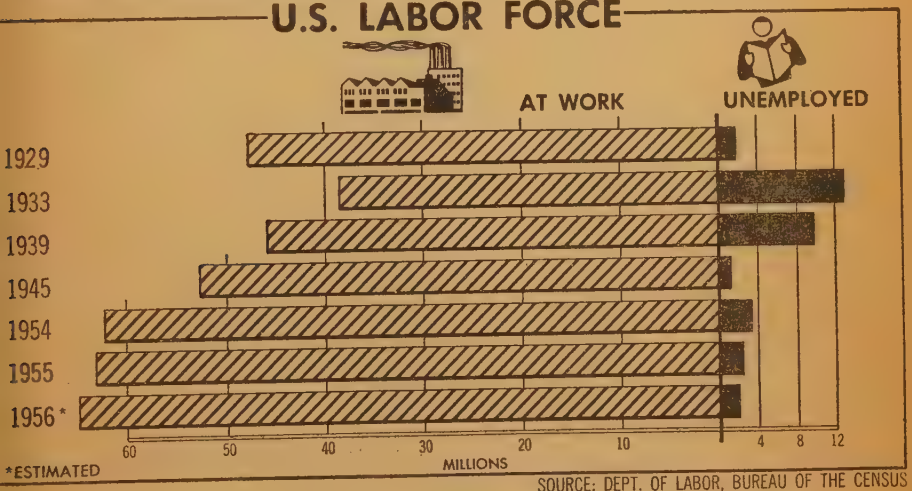


Employment and Unemployment (in millions of persons)

urces: U. S. Bureau of Labor Statistics, U. S. Bureau of the Census, and U. S. Bureau of Agricultural Economics.

Activity	1941	1943	1945	1948	1949	1950	1953	1954	1955[1]
tal employment	50.4	54.5	52.8	59.4	58.7	60.0	61.9	61.3	61.0
on-agricultural employment	41.3	45.4	44.2	51.4	50.7	52.5	55.4	54.7	55.1
Manufacturing	13.0	17.4	15.2	15.3	14.2	14.9	17.3	16.0	16.2
Durable goods	...	6.5	6.3	8.3	7.5	8.0	10.1	9.1	9.3
Nondurable goods	...	10.9	8.9	7.0	6.7	6.9	7.2	6.9	6.9
Mining	.9	.9	.8	1.0	.9	.9	.8	0.8	0.7
Construction	1.8	1.6	1.1	2.2	2.2	2.3	2.6	2.5	2.3
Transportation and public utilities	3.2	3.6	3.9	4.2	4.0	4.0	4.2	4.0	4.0
Trade	7.6	7.3	7.7	9.5	9.4	9.5	10.5	10.5	10.4
Retail	...	5.7	5.9	7.0	6.9	7.0	7.7	7.7	7.7
Wholesale	...	1.6	1.8	2.5	2.5	2.5	2.8	2.8	2.8
Finance	1.5	1.4	1.4	1.7	1.8	1.8	2.0	2.1	2.1
Service	3.6	3.8	3.9	4.8	4.8	4.8	5.5	5.6	5.6
Government	4.6	6.0	6.0	5.6	5.8	5.9	6.6	6.8	6.9
Other, self-employed, domestic	5.1	3.4	4.2	7.1	7.6	8.4	5.9	6.4	6.9
gricultural employment	9.1	9.1	8.6	8.0	8.0	7.5	6.5	6.6	5.9
nemployment	5.5	1.1	1.1	2.0	3.4	3.1	1.5	3.2	3.1
Public works	1.9	[2]	...	...	...	...	...	...	...
otal civilian labor force	55.9	55.5	53.9	61.4	62.1	63.1	63.4	64.6	64.0
rmed forces	1.5	8.9	11.3	1.3	1.5	1.5	[3]	[3]	[3]
otal labor force	57.4	64.4	65.2	62.7	63.6	64.6	67.0	66.0	67.2

[1] Average of first 5 months not adjusted for seasonal variation. [2] Negligible. [3] Data not available.



SOURCE: DEPT. OF LABOR, BUREAU OF THE CENSUS

State and Local Government Employment and Payroll: Oct. 1954

Source: U. S. Department of Commerce.

Function	Employees (in thousands)	Payroll (in millions)	Function	Employees (in thousands)	Payroll (in millions)
Total all functions	4,859	$1,318.3	Natural resources	121	$30.0
Education, total	2,050	600.1	Sanitation	114	31.5
Public schools	1,720	521.2	Local parks and recreation	68	16.8
Institutions of higher learning	307	72.6	Housing and community redevelopment	26	7.6
Other	23	6.3	Employment security	46	14.1
Highways	478	118.9	State liquor stores	14	3.8
Public welfare	100	25.6	Local utilities, total	233	75.3
Health	73	19.5	General control	397	86.7
Hospitals	423	95.6	All other	284	72.4
Police	259	79.3			
Local fire protection	174	41.4			

Number of Service Establishments and Places of Amusement, 1939 and 1948

Source: U. S. Department of Commerce.

Kind of business	1939	1948
PERSONAL SERVICES:		
Barber shops	117,998	91,993
Barber and beauty shops	4,199	2,591
Baths and masseurs	1,600	1,305
Beauty parlors	83,071	74,497
Cleaning and dyeing plants	12,616	25,534
Costume and dress suit rental	417	510
Diaper service	n.a.	384
Funeral service, crematories	18,196	18,675
Fur repair and storage	2,180	2,334
Hat cleaning	1,228	1,426
Laundries, all types	22,736	19,182
Linen supply service	718	1,176
Photographic studios	10,957	14,712
Rug cleaning and repairing	1,012	1,517
Shoe repair shops	50,115	44,151
Shoe shine parlors	7,968	2,962
BUSINESS SERVICES:		
Advertising agencies	1,628	3,279
Auctioneers	970	670
Blueprinting and photostat	500	672
Coin-operated machine	1,554	1,302
Consumer credit reporting	2,576	2,652
Detective agencies	280	603
Disinfecting, exterminating	952	1,393
Employment agencies	1,424	2,231
Interior decorating	461	601
Mailing services	1,433	1,394
News syndicates	n.a.	77
Outdoor advertising	649	798
Photo finishing laboratories	1,201	1,703
Public stenographers	1,329	1,036
Sign painting shops	5,391	4,283
Telephone answering service	n.a.	367
Window cleaning service	823	1,260
Window display services	215	279
REPAIR SERVICES:		
Automotive repair services and garages	78,881	95,544
Automobile rentals	648	1,011
Automobile storage, parking	11,095	8,533
Armature rewinding shops	978	2,023
Bicycle repair shops	1,601	1,283
Blacksmith shops	16,797	8,249
Electrical repair shops	15,644	19,440
Jewelry, watch, clock repair	12,485	12,750
Leather goods repair	2,168	560
Locksmiths and gunsmiths	2,252	1,518
Musical instrument repair	982	789
Radio repair	10,732	12,558
Refrigerator repair	1,297	2,531
Saw, knife and tool sharpening and repair	1,451	1,304
Sewing machine repair	355	488
Stove repair	365	207
Taxidermists	363	211
Tool repair	1,451	1,304
Typewriter repair	618	638
Upholstery, furniture	9,685	10,297
Welding shops	4,118	3 536
OTHER SERVICES:		
Hotels	27,987	29,650
Tourist courts and camps	13,521	25,919
AMUSEMENT PLACES:		
Amusement devices	1,093	1,604
Amusement parks	245	368
Bands, orchestras, entertainers	550	2,026
Bathing beaches (not municipal)	344	261
Bicycle rentals	247	147
Billiard and pool parlors	12,998	9,661
Boat and canoe rental	1,382	1,587
Bowling alleys	4,646	4,505
Clubs, baseball	276	357
Clubs, football	n.a.	21
Dance halls, studios, schools	2,191	1,074
Race tracks, automobile	36	112
Race tracks, dog	11	15
Race tracks, horse	45	71
Riding academies	840	709
Shooting galleries	324	181
Skating rinks, ice	59	42
Skating rinks, roller	1,134	1,382
Sports and athletic fields	188	211
Sports promoters, commercial operators	n.a.	6,518
Swimming pools (not municipal)	668	499
Theaters, motion pictures	15,115	17,689
Theaters and theatrical producers	231	1,426

NOTE: n.a.—not available

Advertising Expenditures by Medium

Source: Printers' Ink.

Medium	1948		1949		1950		1953		1954	
	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total
Newspapers	1,749.6	36.0	1,905.0	36.6	2,063.2	36.3	2,655.1	34.0	2,695.3	33.0
Radio	617.1	12.7	633.8	12.2	667.1	11.7	707.9	9.1	564.9	7.0
Magazines	512.7	10.5	492.5	9.5	514.9	9.0	663.1	8.5	667.9	8.2
Direct mail	689.1	14.2	755.6	14.5	803.2	14.1	1,075.5	13.8	1,202.4	14.7
Business papers	250.9	5.2	248.1	4.8	251.1	4.4	398.8	5.1	407.5	5.0
Outdoor	132.1	2.7	131.0	2.5	142.5	2.5	174.7	2.2	186.9	2.3
Farm papers	20.4	.4	20.5	.4	21.2	.4	30.8	0.4	31.8	0.4
Television	....	...	63.0	1.2	185.0	3.3	688.7	8.8	803.6	9 8
Miscellaneous	891.7	18.3	952.7	18.3	1,043.1	18.3	1,408.2	18.1	1,603 8	19 5
Total	4,863.6	100.0	5,202.2	100.0	5,691.3	100.0	7,803.2	100.0	8,164.1	100.0

Why Strikes?

Major issues	Percentage of total strikes 1948	1949	1950	1954
Wages and hours	50.8	46.6	52.8	49.8
Union organization, wages and hours	9.4	6.0	5.6	4.6
Union organization:	13.4	15.7	13.4	12.4
Recognition	9.2	10.8	9.9	8.6
Strengthening bargaining position	.4	.5	.5	.3
Closed or union shop	1.8	2.2	1.8	2.5
Discrimination	1.3	1.8	.8	.5
Other	.7	.4	.4	.4
Other working conditions	21.5	25.0	22.0	24.1
Job security	10.0	12.6	12.2	11.4
Shop conditions and policies	9.7	9.7	7.8	10.5
Work load	1.3	2.1	1.5	1.7
Other	.5	.6	.5	.5
Interunion or intraunion matters	3.8	5.8	5.3	7.3
Sympathy	1.3	1.4	1.0	1.1
Union rivalry or factionalism	1.4	1.5	1.6	1.7
Jurisdiction	1.0	2.6	2.5	4.4
Other	.1	.3	.1	.1
Not reported	1.1	.9	.9	1.8
All issues	100.0	100.0	100.0	100.0

Strikes and Lockouts

Source: U. S. Bureau of Labor Statistics.

Year	Strikes and lockouts Number	Workers involved Number (thousands)	Man-days idle Number (thousands)
1885	695	258	n.a.
1890	1,897	373	n.a.
1895	1,255	407	n.a.
1900	1,839	568	n.a.
1905	2,186	302	n.a.
1915	1,593	n.a.	n.a.
1917	4,450	1,227	n.a.
1920	3,411	1,463	n.a.
1925	1,301	428	n.a.
1929	921	289	5,352
1930	637	183	3,317
1932	841	324	10,502
1933	1,695	1,168	16,872
1935	2,014	1,117	15,456
1939	2,613	1,171	17,812
1943	3,752	1,981	13,501
1945	4,750	3,470	38,025
1946	4,985	4,600	116,000
1948	3,419	1,960	34,100
1949	3,606	3,030	50,500
1950	4,843	2,410	38,800
1952	5,117	3,540	59,100
1953	5,091	2,400	28,300
1954	3,468	1,530	22,600

n.a. = not available.

Membership of Leading American Labor Unions, 1955

Source: Bureau of Labor Statistics, *Directory of Labor Unions in the United States, 1955*

Name of Union	Affiliation	No. of Members
Amalgamated Clothing Workers	CIO	385,000
Amalgamated Meat Cutters and Butcher Workmen[1]	AFL	335,167
American Federation of Musicians	AFL	248,078
Brotherhood of Locomotive Firemen and Enginemen	Ind.	95,000
Brotherhood of Maintenance of Way Employees	AFL	219,191
Brotherhood of Painters, Decorators and Paperhangers	AFL	220,000
Brotherhood of Railroad Trainmen	Ind.	204,397
Brotherhood of Railway and Steamship Clerks	AFL	346,443[2]
Building Service Employees' International Union	AFL	206,692
Communications Workers of America	CIO	300,000
Hotel & Restaurant Employees' International Alliance	AFL	412,946
International Association of Machinists	AFL	864,095
International Brotherhood of Boilermakers	AFL	150,000
International Brotherhood of Electrical Workers	AFL	630,000
International Brotherhood of Pulp, Sulphite and Papermill Workers	AFL	149,942
International Brotherhood of Teamsters	AFL	1,231,000
International Hod Carriers', Building and Common Laborers' Union	AFL	433,125
International Ladies' Garment Workers' Union	AFL	440,650
International Union of Mine, Mill and Smelter Workers	Ind.	100,000
International Union of Electrical, Radio & Machine Workers	CIO	361,639
International Union of Operating Engineers	AFL	200,000
Oilworkers' International Union[3]	CIO	180,000
Retail Clerks	AFL	265,000
United Association of Plumbers and Steam Fitters	AFL	240,720
United Automobile, Aircraft & Agricultural Implement Workers	CIO	1,239,000
United Brotherhood of Carpenters and Joiners	AFL	804,343
United Electrical, Radio and Machine Workers	Ind.	150,000[2]
United Mine Workers	Ind.	800,000[2]
United Rubber, Cork, Linoleum and Plastic Workers	CIO	175,000
United Steelworkers	CIO	1,194,000

[1] Membership early in 1955 after the International Fur and Leather Workers' Union merged with the Meat Cutters and Butcher Workmen. [2] 1954. [3] Formed in March 1955 by merger of the Oil Workers International Union (CIO) and the United Gas, Coke and Chemical Workers of America (CIO). Number of members applies to March 1955.

Wholesale and Retail Trade: No. of Establishments, 1939 and 1948

Source: Bureau of Census, Department of Commerce.

Kind of business group	No. of establishments 1939	1948	Kind of business group	No. of establishments 1939	1948
Retail trade, total	1,770,355	1,771,317	Drugs, chemicals, allied products	3,298	4,671
Food group	560,549	504,902	Tobacco and products (except leaf)	2,717	3,019
Eating and drinking places	305,386	346,677	Dry goods, apparel	8,275	11,733
General stores	39,688	21,566	Furniture, home furnishings	2,214	3,813
General merchandise group	50,267	52,741	Paper and its products	2,898	4,044
Apparel group	106,959	115,707	Farm products—raw materials	2,086	2,594
Furniture, furnishings, appliance group	52,827	85,680	Automotive	7,818	14,693
Automotive group	60,132	86,194	Electrical goods	3,072	5,443
Gasoline service stations	241,858	188,301	Hardware, plumbing, heating	3,568	5,901
Lumber, building, hardware group	79,313	99,043	Lumber, construction materials	3,303	5,890
Drug and proprietary stores	57,903	55,903	Machinery equipment & supplies	11,270	21,430
Liquor	19,136	33,460	Metals, metalwork (except scrap)	1,017	1,803
Secondhand stores	23,962	16,969	Waste materials	6,059	7,717
Other retail stores	172,375	164,174	Other merchant wholesalers	10,508	15,688
Wholesale trade, total	199,726	243,366	Manufacturers' sales branches, offices	17,926	23,768
Merchant wholesalers, total	100,961	146,518	Petroleum bulk stations, terminals	30,825	29,451
Groceries, confectionery, meats	15,681	17,345	Agents, brokers	21,083	24,361
Farm products	10,945	13,539	Assemblers (mainly farm products)	28,931	19,268
Beer, wines, distilled spirits	6,232	7,195			

Retail Sales by Kind of Business Group

(in millions of dollars)

Source: U. S. Bureau of the Census.

Kind of business	1952 Amount	1952 %	1953 Amount	1953 %	1954 Amount	1954 %
Durable-goods stores[1]	$ 55,270	33.7	$ 60,270	35.7	$ 58,173	31.7
Automotive group	28,337	17.3	33,319	19.5	31,665	17.2
Motor-vehicle, other automotive dealers	26,383	16.1	31,499	18.4	29,961	16.3
Tire, battery, accessory dealers	1,944	1.2	1,820	1.1	1,704	0.9
Furniture and appliance group	8,926	5.4	9,125	5.3	9,089	4.9
Furniture, home furnishings stores	5,255	3.2	5,135	3.0	5,293	2.9
Household appliance, radio stores	3,671	2.2	3,990	2.3	3,788	2.1
Lumber, building, hardware group	10,200	6.2	10,421	6.1	10,133	5.5
Lumber, building-materials dealers	7,572	4.6	7,713	4.5	7,432	4.0
Hardware stores	2,628	1.6	2,708	1.6	2,702	1.5
Non-durable goods stores[1]	108,815	66.3	110,369	64.6	112,492	61.2
Apparel group	10,633	6.5	10,255	6.0	10,148	5.5
Men's and boys' wear stores	2,497	1.5	2,249	1.3	2,240	1.2
Women's apparel, accessory stores	4,233	2.6	4,089	2.4	4,009	2.2
Family and other apparel stores	2,210	1.3	2,181	1.3	2,092	1.1
Shoe stores	1,693	1.1	1,735	1.0	1,808	1.0
Drug and proprietary stores	4,717	2.9	4,789	2.8	4,941	2.7
Eating and drinking places	12,688	7.7	13,002	7.6	13,126	7.1
Food group[1]	39,771	24.2	40,777	23.9	41,634	22.7
Grocery stores	32,238	19.6	33,623	19.7	34,994	19.0
Gasoline service	9,976	6.1	10,536	6.2	11,444	6.2
General-merchandise group	18,694	11.4	19,005	11.1	18,856	10.3
Department stores, excluding mail order	10,277	6.3	10,370	6.0	10,272	5.6
Mail order (catalog sales)	1,339	.8	1,327	.8	1,222	0.7
Variety stores	2,996	1.8	3,094	1.8	3,027	1.6
Other general merchandise stores	4,082	2.5	4,215	2.5	4,336	2.4
Liquor stores	3,165	1.9	3,324	1.9	3,417	1.9
All retail sales	164,085	100.0	170,742	100.0	183,747	100.0

[1] Sales of other durable-goods stores, other food stores and other non-durable goods stores not reported separately but included in totals.

Wholesale Price Indexes by Major Commodity Groups
(1947–49 = 100)

Source: U. S. Bureau of Labor Statistics.

Commodity	1947	1948	1949	1951	1954	1955*
All commodities	96.4	104.4	99.2	114.8	110.3	110.5
arm products	100.0	107.3	92.8	113.4	95.7	94.2
rocessed foods	98.2	106.1	95.7	111.4	104.8	102.5
extile products & apparel	100.1	104.4	95.5	110.6	95.2	95.1
ides, skins & leather products	101.0	102.1	96.9	120.3	94.2	93.2
uel, power & lighting materials	90.9	107.1	101.9	106.7	108.1	108.2
hemicals & allied products	101.4	103.8	94.8	110.0	107.0	107.1
ubber & products	99.0	102.1	98.9	148.0	126.9	138.3
umber & wood products	93.7	107.2	99.2	123.9	118.0	122.2
ulp, paper & allied products	98.6	102.9	98.5	119.6	116.3	117.4
Metals & metal products	91.3	103.9	104.8	122.8	128.0	132.8
Machinery & motive products	92.5	100.9	106.6	119.0	124.5	126.2
urniture & other household durables	95.6	101.4	103.1	114.1	115.4	115.1
Nonmetallic minerals—structural	93.9	101.7	104.4	113.6	120.8	122.2
obacco manufactures & bottled beverages	98.0	100.4	101.6	108.1	120.6	121.6
Miscellaneous	100.8	103.1	96.1	104.9	102.6	94.0

* April 1955.

Domestic Passenger Traffic by Major Carriers
(in millions of passenger-miles)

Source: Interstate Commerce Commission; U. S. Army, Office of the Chief of Engineers; Civil Aeronautics Board.

Year	Steam railroads		Busses		Air carriers		Electric Interurban railways		Inland waterways[1]	
	Passenger-miles	% of total	Passenger-miles	% of total	Passenger-miles	% of total	Passenger-miles	% of total	Passenger-miles	% of total
1939	22,713	65.0	9,100	26.0	683	2.0	956	2.7	1,486	4.3
1941	29,406	62.7	13,100	27.9	1,385	3.0	1,177	2.5	1,821	3.9
1944	95,663	74.2	26,920	20.8	2,178	1.7	2,042	1.6	2,187	1.7
1947	45,972	58.5	23,948	30.4	6,110	7.8	771	1.0	1,845	2.3
1949	35,133	52.8	22,411	33.7	6,753	10.1	842	1.3	1,402	2.1
1951	34,640	50.4	21,499	31.3	10,566	15.4	666	1.0	1,333	1.9
1952	34,040	49.3	20,500	29.7	12,528	18.1	650	0.9	1,400	2.0
1953	31,679	46.4	19,730	28.9	14,760	21.6	582	0.9	1,487	2.2
1954[2]	29,300	44.7	17,700	27.0	16,600	25.3	550	0.8	1,400	2.2

[1] Rivers, canals and Great Lakes. [2] Preliminary.

Domestic Freight Traffic by Major Carriers
(in millions of ton-miles)

Source: Interstate Commerce Commission; U. S. Army, Office of the Chief of Engineers; Civil Aeronautics Board.

Year	Steam railways[1]		Inland waterways[2]		Motor trucks		Oil pipelines		Air carriers[1]	
	Ton-miles	% of total	Ton-miles	% of total	Ton-miles	% of total	Ton-miles	% of total	Ton-miles	% of total
1939	338,125	64 22	88,897	16 88	43,931	8.34	55,602	10.56	12	...
1941	480,730	64 68	130,916	17.61	63,258	8.51	68,428	9.20	19	...
1944	745.573	70 14	137,005	12.89	47,395	4.46	132,864	12.50	71	.01
1947	663.442	67.51	135.964	13.84	77,918	7.93	105,161	10.70	158	.02
1949	533,862	61.17	130,192	14.91	93,653	10.73	114,916	13.16	235	.03
1951	654,340	59 05	168,143	15 17	133,160	12.02	152,115	13.73	378	.03
1952	622,300	57.76	154,900	14.37	140,000	12 99	160,000	14.84	420	.04
1953	613,171	52 55	180,622	15 49	206,808	17.72	165,728	14.30	427	04
1954	556,000	51.46	148,000	13.70	208 000	19.25	168,000	15.55	450	.04

[1] Includes express and mail. [2] Rivers, canals and domestic traffic on Great Lakes. [3] Preliminary.

Sales of Leading Retail Outlets

Source: Moody's Manual of Industrials.

	1954 Sales (in thousands)
DEPARTMENT STORES	
J. C. Penney Co.	$1,107,157
Allied Stores Corp.	515,830
Federated Department Stores	500,556
May Department Stores Co.	444,371
Macy's	340,316
Gimbel Bros., Inc.	286,419
Marshall Field & Co.	206,309
VARIETY STORES	
F. W. Woolworth Co.	721,313
S. S. Kresge Co.	337,914
W. T. Grant Co.	299,768
G. C. Murphy Co.	182,173
J. J. Newberry Co.	179,756
S. H. Kress & Co.	169,417
McCrory Stores Corp.	103,856
GROCERY STORES	
Great Atlantic & Pacific Tea Co.	3,989,103
Safeway Stores, Inc.	1,813,517
Kroger Co.	1,108,694
American Stores Co.	603,737
First National Stores, Inc.	442,180
DRUG STORES	
Walgreen Co.	$184,267
United-Rexall Drug, Inc.	176,138
Sterling Drug Co.	164,264
People's Drug Store, Inc.	54,952
SHOE STORES	
International Shoe Co.	246,765
Endicott Johnson Corp.	133,317
Melville Shoe Co.	107,866
Edison Bros. Stores, Inc.	80,189
A. S. Beck Shoe Corp.	64,542
G. R. Kinney Co.	46,903
MAIL-ORDER HOUSES	
Sears-Roebuck & Co.	2,965,409
Montgomery Ward & Co.	887,337
Spiegel, Inc.	129,202
FURNITURE STORES	
Barker Bros. Corp.	28,527
Spear & Co.	25,153
Reliable Stores Corp.	23,371
W. & J. Sloane	22,565
Sterchi Bros. Stores, Inc.	17,082
Sterling, Inc.	9,607

Billion-Dollar Companies

(Assets in millions of dollars as of December 31, 1954)

Source: Business Week.

Company	Assets	Company	Assets
Bell Telephone System	$12,850	Bethlehem Steel Corp.	$1,613
Standard Oil Co. (N. J.)	6,615	Consolidated Edison Co. (N. Y.)	1,542
General Motors Corp.	6,021	Atchison, Topeka & Santa Fe Ry.	1,485
U. S. Steel Corp.	3,539	Sears, Roebuck & Co.	1,470
Pennsylvania R. R.	2,456	Union Pacific R. R.	1,386
Socony-Vacuum Oil Co.	2,257	Westinghouse Electric Corp.	1,329
Standard Oil Co. (Ind.)	2,199	Baltimore & Ohio R. R.	1,274
Ford Motor Co.	2,000 *	Union Carbide & Carbon	1,252
Texas Co.	1,996	Humble Oil Co.	1,245
Southern Pacific System	1,986	Commonwealth Edison Co.	1,188
New York Central R. R.	1,974	Sinclair Oil Co.	1,187
Gulf Oil Co.	1,969	Shell Oil Co.	1,102
E. I. du Pont de Nemours & Co.	1,946	Phillips Petroleum Co.	1,093
Pacific Gas & Electric Co.	1,786	Cities Service Co.	1,067
General Electric Co.	1,692	Chrysler Corp.	1,035
Standard Oil Co. (Cal.)	1,678	American Gas & Electric System	1,035

* Estimate.

Chain Stores* vs. Other Stores

(in millions of dollars)

	1939	1941	1945	1948	1950	1952*	1953*	1954*
Chain stores	9,570	12,635	17,280	29,737	31,232	30,098	32,930	31,688
Other retail stores	32,472	42,639	60,754	100,784	112,315	133,987	137,812	138,977
Total sales	42,042	55,274	78,034	130,521	143,547	164,085	170,742	170,665
Chains as per cent of total	22.8	22.9	22.1	22.8	21.8	18.4	19.2	18.6

* Beginning 1952, new series, chain stores now include only those firms with 11 or more stores.

Farm Income—Estimated Receipts from Major Farm Marketings
(in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Cotton and cotton-seed	Tobacco	Food grains	Oil-bearing crops	Feed grains and hay	Vege-tables	Fruits and nuts	Meat animals	Dairy products	Poultry & eggs
1919	2,282	500	1,749	96	1,173	631	597	4,045	1,522	1,106
1929	1,511	279	788	85	697	751	582	3,017	1,838	1,187
1932	461	115	220	29	247	359	299	1,159	986	562
1939	627	271	464	110	485	545	411	2,271	1,346	775
1944	1,548	688	1,369	581	1,203	1,510	1,446	5,706	2,938	2,473
1947	2,245	1,033	2,768	908	2,328	1,710	1,160	9,340	4,046	2,926
1949	2,632	904	2,339	846	2,299	1,641	1,013	8,383	3,778	3,088
1951	2,849	1,187	1,896	1,058	1,966	1,670	1,214	11,308	4,290	3,667
1953	3,186	1,092	2,460	995	2,228	1,757	1,228	8,852	4,370	3,185
1954	2,584	1,162	2,139	1,004	2,340	1,620	1,240	9,107	4,116	3,198

Farm Income (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Est. cash income		Government payments	Total cash income
	Crops	Livestock and livestock products		
1919	7,645	6,925	...	14,570
1929	5,120	6,179	...	11,299
1931	2,532	3,837	...	6,369
1935	2,957	4,117	573	7,647
1941	4,605	6,470	544	11,619
1945	9,419	12,001	742	22,162
1946	10,835	13,719	772	25,326
1947	13,231	16,523	314	30,068
1949	12,586	15,426	185	28,197
1950	12,575	16,198	283	29,056
1951	13,053	19,569	286	32,908
1952	14,627	18,498	292	33,417
1953	13,797	17,178	213	31,188
1954	13,270	16,684	257	30,211

Farms—Population and Property

Source: U. S. Bureau of the Census.

Item	1930	1940	1950
Farm population (thousands)	29,447	29,047	24,335
Number of farms (thousands)	6,289	6,097	5,382
Tenancy as % of total	42.2	38.7	26.8
All land in farms (million acres)	986	1,061	1,159
Average acreage per farm	156.9	174.0	215.3
Value of farm property (millions of dollars)*	56,973	41,227	101,738

* Includes land, buildings, livestock, implements and machinery.

Farm Prices and Parity Prices

Source: U. S. Bureau of Agricultural Economics.

Product	April 15, 1955		Actual price as % of parity price
	Price received	Parity price*	
Wheat (bushel)	$ 2.09	$ 2.51	83.3%
Rye (bushel)	1.06	1.69	62.7
Rice (bushel)	4.52	5.48	82.5
Corn (bushel)	1.36	1.82	74.7
Oats (bushel)	.73	.87	83.9
Barley (bushel)	1.07	1.35	79.3
Sorghum grain (100 pounds)	2.23	2.55	87.5
Hay (ton)	22.40	23.90	93.7
Cotton (pound)	.32	.35	91.4
Cottonseed (ton)	53.40	71.60	74.6
Soybeans (bushel)	2.42	2.93	86.6
Peanuts (pound)	.13	.14	92.9
Flaxseed (bushel)	2.87	4.49	65.1
Potatoes (bushel)	2.17	1.47	147.6
Sweet potatoes (bushel)	3.15	2.79	112.9
Apples (bushel)	2.93	2.84	103.2
Oranges on tree (box)	1.79	2.88	62.2
Hogs (hundredweight)	16.60	21.40	77.6
Beef cattle (hundredweight)	17.00	21.40	79.4
Veal calves (hundredweight)	17.60	23.50	74.9
Lambs (hundredweight)	19.60	23.50	83.4
Butterfat (pound)	.57	.74	77.0
Milk, wholesale (100 pounds)	3.73	4.71	79.2
Chickens (pound)	.26	.29	89.7
Eggs (dozen)	.36	.47	76.6
Wool (pound)	.49	.60	81.7

* Parity price is the August 1909–July 1914 average price increased by the rise in index of prices paid by farmers, including interest and taxes.

Agricultural Output by States, 1954 Crops

(in thousands of bushels; except cotton lint in thousands of 500 pounds gross weight bales; tobacco in thousands of pounds; livestock in thousands). *Source:* U. S. Department of Agriculture.

State	Wheat	Corn	Cotton lint	Potatoes	Tobacco	Cattle*	Hogs*
Alabama	528	28,808	728	3,925	622	1,804	1,097
Arizona	588	576	911	1,513	.....	945	25
Arkansas	1,638	8,364	1,351	819	.....	1,485	426
California	9,260	7,680	1,487	38,210	.....	3,583	461
Colorado	16,500	9,325	.....	17,600	.....	2,054	190
Connecticut	.....	1,880	.....	3,140	22,674	188	23
Delaware	822	5,270	.....	2,002	.....	78	38
Florida	.....	9,200	.....	9,786	32,941	1,679	519
Georgia	2,072	29,642	612	395	124,220	1,439	1,661
Idaho	35,343	3,233	.....	40,800	.....	1,328	121
Illinois	44,921	449,312	.....	360	.....	3,946	6,778
Indiana	39,711	256,104	.....	3,438	16,137	2,054	4,566
Iowa	2,052	540,015	.....	600	.....	6,279	12,048
Kansas	176,208	39,558	.....	259	115	4,341	898
Kentucky	5,508	66,433	.....	1,445	502,972	1,861	1,129
Louisiana	.....	12,957	572	927	240	1,787	410
Maine	.....	312	.....	48,960	.....	238	26
Maryland	4,972	18,778	.....	767	42,500	540	215
Massachusetts	.....	1,656	.....	2,100	11,629	190	114
Michigan	30,000	83,028	.....	9,800	.....	2,003	818
Minnesota	9,828	277,043	.....	16,605	264	3,939	3,668
Mississippi	784	27,234	1,571	560	.....	2,080	631
Missouri	40,114	69,201	450	1,080	5,698	3,910	3,610
Montana	76,557	2,813	.....	2,401	.....	2,441	125
Nebraska	61,623	196,000	.....	4,620	.....	5,016	2,453
Nevada	324	120	.....	510	.....	625	25
New Hampshire	.....	645	.....	988	.....	118	10
New Jersey	1,512	9,600	.....	5,784	.....	228	116
New Mexico	643	1,318	316	78	.....	1,140	52
New York	10,065	29,568	.....	31,560	.....	2,356	160
North Carolina	7,436	50,784	364	5,889	913,874	933	1,154
North Dakota	69,896	25,704	.....	20,600	.....	1,937	401
Ohio	48,510	232,066	.....	5,750	28,840	2,438	2,812
Oklahoma	70,770	4,012	293	264	.....	3,182	432
Oregon	25,023	1,400	.....	13,200	.....	1,458	138
Pennsylvania	19,796	63,204	.....	13,680	43,416	1,954	604
Rhode Island	.....	231	.....	1,148	.....	29	6
South Carolina	3,081	11,718	501	1,595	148,050	492	525
South Dakota	27,008	115,913	.....	1,680	.....	3,301	1,524
Tennessee	3,959	40,484	548	1,425	148,118	1,771	1,012
Texas	30,894	33,184	3,940	2,033	.....	8,501	1,087
Utah	6,555	1,443	.....	3,380	.....	762	60
Vermont	.....	2,856	.....	720	.....	479	11
Virginia	6,936	30,063	.....	4,789	166,458	1,382	658
Washington	72,444	1,539	.....	13,200	.....	1,138	110
West Virginia	1,152	9,045	.....	1,680	4,960	611	165
Wisconsin	658	154,445	.....	11,610	22,680	4,318	1,850
Wyoming	3,315	875	.....	1,536	.....	1,072	40
Total	969,781	2,964,639	13,696	356,031	2,236,408	95,433	55,002

* Number on farms as of Jan. 1, 1955.

Domestic Animals on Farms, Number and Value

Source: U. S. Department of Agriculture.

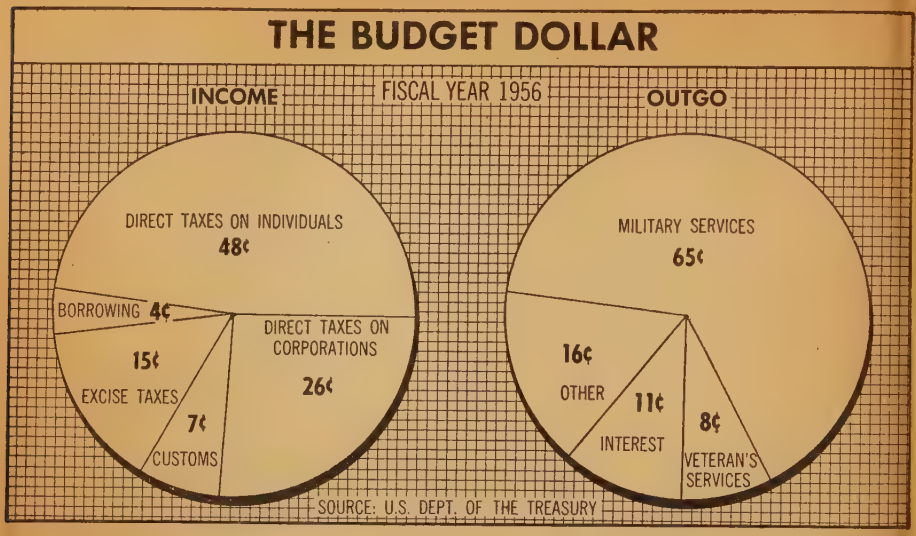
January 1:	Number (thousands)							Value of domestic animals (millions of dollars)
	Horses	Mules	Dairy cows	Sheep	Swine	Chickens	Turkeys	
1940	10,444	4,034	24,940	52,107	61,165	438,288	8,569	3,791
1945	8,715	3,235	27,770	46,520	59,373	516,497	7,082	6,050
1947	7,340	2,789	25,842	37,489	56,810	467,217	5,879	7,813
1950	5,548	2,233	23,853	29,826	58,852	456,549	5,124	7,481
1951	4,993	2,074	23,722	30,635	62,852	442,657	5,091	9,150
1952	4,330	1,913	23,369	32,088	63,582	449,925	5,822	9,737
1953	3,798	1,753	24,094	31,861	54,294	429,731	5,305	7,714
1954	3,401	1,599	24,675	31,218	48,560	442,813	5,315	6,754
1955	3,106	1,445	24,408	30,931	55,002	447,310	5,448	6,156

Regional Economic Differences

Source: U. S. Depts. of Commerce and Labor and *Sales Management*, American Telephone and Telegraph Co. and Edison Electric Institute.

State	1950 % of employed in Agri-culture	1950 % of employed in Manufac-turing	Income received per capita, 1954	% increase per capita income received, 1929–54	Est. retail sales* ($ millions, 1954)	% distribution of electric customers, 1954	% households with telephone service, Jan. 1955
New England	....	....	1,935	121	10,713	6.56	...
Maine	9.3	34.2	1,492	148	906	.64	63
New Hampshire	6.5	40.4	1,605	133	562	.42	69
Vermont	18.2	24.6	1,408	125	399	.26	65
Massachusetts	1.8	37.4	1,922	111	5,334	3.23	83
Rhode Island	1.5	44.0	1,823	109	855	.54	72
Connecticut	2.9	42.6	2,361	129	2,657	1.47	93
Middle Atlantic	....	....	2,043	109	36,212	19.89	...
New York	2.9	29.8	2,163	87	18,874	9.85	82
New Jersey	2.5	37.7	2,219	138	5,924	3.50	85
Pennsylvania	4.1	35.5	1,785	130	11,414	6.54	77
East North Central	....	....	1,989	148	37,700	20.85	...
Ohio	6.9	36.6	1,983	154	9,706	5.51	81
Indiana	11.6	34.8	1,834	200	4,634	2.78	73
Illinois	7.1	32.0	2,155	125	11,000	5.65	73
Michigan	6.7	40.9	2,017	154	8,281	4.52	83
Wisconsin	18.6	30.6	1,706	150	4,078	2.39	76
West North Central	....	....	1,648	188	16,186	9.44	...
Minnesota	22.1	16.3	1,644	175	3,530	2.05	81
Iowa	28.5	15.2	1,667	189	3,046	1.74	82
Missouri	17.5	21.8	1,747	178	4,387	2.63	69
North Dakota	44.2	2.9	1,186	216	730	.35	61
South Dakota	40.5	4.9	1,332	219	719	.41	64
Nebraska	29.6	9.2	1,635	177	1,624	.88	77
Kansas	23.0	12.6	1,689	216	2,149	1.38	78
South Atlantic	....	....	1,438	211	19,667	13.20	...
Delaware	8.8	32.4	2,372	133	517	.24	85
Maryland	6.1	24.9	1,940	150	2,577	1.50	73
District of Columbia	0.2	7.3	2,220	74	1,381	.36	85
Virginia	14.6	20.5	1,480	240	2,951	1.92	58
West Virginia	9.8	18.9	1,232	167	1,458	1.10	49
North Carolina	24.6	27.9	1,180	256	3,000	2.55	44
South Carolina	26.1	27.9	1,063	294	1,495	1.21	41
Georgia	21.2	23.0	1,237	253	2,725	2.01	50
Florida	12.2	10.7	1,610	209	3,561	2.31	59
East South Central	....	....	1,118	221	8,233	6.32	...
Kentucky	25.7	15.8	1,216	211	2,140	1.63	46
Tennessee	21.8	21.1	1,212	221	2,728	1.98	54
Alabama	24.3	21.8	1,091	237	2,089	1.67	42
Mississippi	42.1	12.6	873	206	1,276	1.06	32
West South Central	....	....	1,438	230	14,699	9.11	...
Arkansas	35.0	13.8	979	221	1,339	1.05	34
Louisiana	17.3	15.1	1,302	214	2,326	1.61	57
Oklahoma	20.5	9.8	1,466	223	2,026	1.44	62
Texas	16.0	13.5	1,574	229	9,009	5.01	59
Mountain	....	....	1,611	178	6,272	3.37	...
Montana	24.8	8.5	1,729	191	729	.39	64
Idaho	26.8	9.2	1,433	185	710	.40	60
Wyoming	20.5	6.0	1,779	163	408	.19	64
Colorado	15.1	12.2	1,686	165	1,671	.93	77
New Mexico	18.4	5.9	1,387	241	697	.39	47
Arizona	14.7	8.8	1,582	168	1,006	.49	56
Utah	12.4	12.2	1,483	165	774	.45	76
Nevada	10.5	5.1	2,414	175	278	.13	65
Pacific	....	....	2,090	129	20,354	11.26	...
Washington	9.3	21.2	1,949	160	2,829	1.71	73
Oregon	12.1	22.7	1,757	157	2,040	1.08	67
California	7.3	19.6	2,162	117	15,485	8.47	79
Total	12.2	25.9	1,770	152	170,035	100.00	70

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U. S. Money in Circulation by Denomination[1]

(in millions of dollars)

Source: U. S. Treasury Department.

Denomination	1939	1940	1943	1945	1950	1951	1952	1953	1954	1955[3]
Coin	590	648	1,019	1,274	1,554	1,654	1,750	1,812	1,834	1,858
$1[2]	559	610	909	1,039	1,113	1,182	1,228	1,249	1,256	1,226
$2	36	39	70	73	64	67	71	72	71	72
$5	1,019	1,129	1,973	2,313	2,049	2,120	2,143	2,119	2,098	2,061
$10	1,772	2,021	5,194	6,782	5,998	6,329	6,561	6,565	6,450	6,471
$20	1,576	1,800	5,705	9,201	8,529	9,177	9,596	9,819	9,665	9,625
$50	460	538	1,481	2,327	2,422	2,544	2,669	2,732	2,720	2,658
$100	919	1,112	2,912	4,220	5,043	5,207	5,447	5,581	5,612	5,487
$500	191	227	407	454	368	355	343	333	321	312
$1,000	425	523	749	801	588	556	512	486	464	448
$5,000	20	30	9	7	4	4	4	4	3	3
$10,000	32	60	22	24	12	12	10	11	15	9
Unassorted	2	4	2	2	2	2	2	2	2	(4)
Total	7,598	8,732	20,449	28,515	27,741	29,206	30,433	30,781	30,509	30,229

[1] End of year. [2] Paper currency only; $1 silver coins reported under coin. [3] End of June. [4] Less than $500,000.

Public Debt of the United States

Source: U. S. Treasury Department.

June 30—	Gross debt Amount (in millions of dollars)	Gross debt Per capita (dollars)	June 30—	Gross debt Amount (in millions of dollars)	Gross debt Per capita (dollars)
1800*	$ 83	$ 15.87	1943	$ 136,696	$ 999.83
1860	65	2.06	1945	258,682	1,848.60
1865	2,678	75.01	1946	269,422	1,905.42
1900	1,263	16.60	1947	258,286	1,792.05
1915	1,191	11.85	1948	252,292	1,720.71
1920	24,299	228.23	1950	257,357	1,696.75
1929	16,931	139.04	1951	255,222	1,653.42
1932	19,487	156.10	1952	259,105	1,650.55
1935	28,701	225.55	1953	266,071	1,666.11
1937	36,425	282.75	1954	278,784	1,721.22
1939	40,440	308.98	1955 estimated	277,515	1,713.05

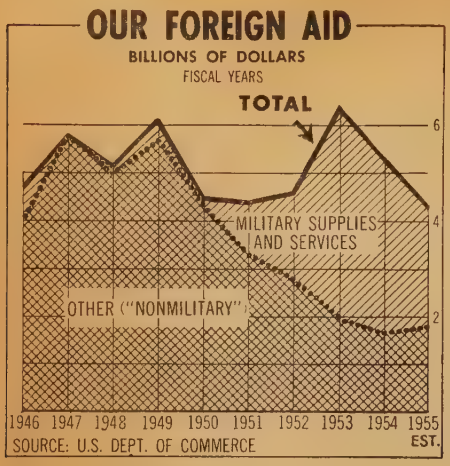
* Figures for 1800 are as of Jan. 1.

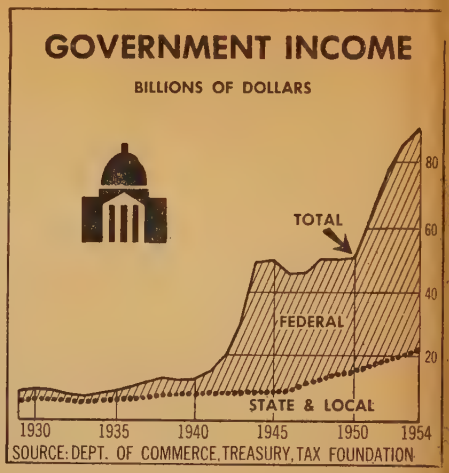
Receipts and Expenditures of the National Government (in millions of dollars)

Source: U. S. Treasury Department.

Yearly average or year ended June 30	Receipts					Expenditures					
	Customs (including tonnage tax)[1]	Internal revenue		Other receipts	Total receipts	Net receipts[2]	Department of the Army[3]	Department of the Navy	Interest on public debt	All other	Total expenditures[4]	Surplus (+) or deficit (−)
		Income and profits tax	Other									
1789–1800	6	.....	.....	.....	7	7	2	.....	3	1	6	.....
1801–1810	12	.....	.....	.....	13	13	2	1	4	2	9	+4
1811–1820	16	.....	2	3	21	21	11	5	5	3	24	−3
1821–1830	20	.....	.....	2	22	22	4	3	4	5	16	+6
1831–1840	20	.....	.....	10	30	30	8	5	.....	11	24	+6
1841–1850	24	.....	.....	3	27	27	13	7	1	11	32	−5
1851–1860	54	.....	.....	6	60	60	16	12	3	29	60	.....
1861–1865	69	17	55	20	161	161	548	65	35	36	684	−523
1866–1870	179	51	171	46	447	447	128	28	135	86	377	+70
1871–1875	186	8	113	30	337	337	40	23	112	112	287	+50
1876–1880	146	.....	117	25	288	288	37	16	100	102	255	+33
1881–1885	202	.....	132	33	367	367	43	16	64	135	258	+109
1886–1890	216	.....	127	32	375	375	40	18	44	177	279	+96
1891–1895	177	.....	150	26	353	353	50	29	30	255	364	−11
1896–1900	185	.....	207	43	435	435	111	48	38	260	457	−22
1901–1905	260	.....	255	44	559	559	133	86	28	288	535	+24
1906–1910	311	4	257	56	628	628	169	113	23	334	639	−11
1915	210	80	336	72	698	698	202	142	23	394	761	−63
1918	180	2,314	872	299	3,665	3,665	4,870	1,279	190	6,358	12,697	−9,032
1929	602	2,331	607	493	4,033	4,033	426	365	678	1,830	3,299	+734
1933	251	746	858	225	2,080	2,021	435	349	689	3,150	4,623	−2,602
1937	486	2,163	2,434	211	5,294	4,979	628	557	866	5,705	7,756	−2,777
1939	319	2,189	2,972	188	5,668	5,104	695	673	941	6,657	8,966	−3,862
1943	324	16,094	6,050	934	23,402	22,202	42,526	20,888	1,808	14,400	79,622	−57,420
1944	431	34,655	7,030	3,325	45,441	43,892	49,438	26,538	2,609	16,730	95,315	−51,423
1945	355	35,173	8,729	3,493	47,750	44,762	50,490	30,047	3,617	14,549	98,703	−53,941
1946	435	30,885	9,426	3,492	44,238	40,027	27,987	15,161	4,722	12,833	60,703	−20,676
1947	494	29,305	10,074	4,635	44,508	40,043	9,172	5,597	4,958	19,562	39,289	+754
1949	384	29,482	10,825	2,082	42,773	38,246	7,862	4,435	5,339	20,730	40,057	−1,811
1950	423	28,263	11,186	1,439	41,311	37,045	5,789	4,130	5,750	20,977	40,167	−3,122
1951	624	37,753	13,354	1,639	53,369	48,143	8,636	5,863	5,613	18,163	44,633	+3,510
1952	551	51,347	14,288	1,814	67,999	62,129	17,453	10,231	5,859	19,750	66,145	−4,017
1953	613	54,073	15,808	1,864	72,649	64,825	32,139	11,875	6,503	23,756	74,274	−9,449
1954	562	53,906	16,394	2,311	73,173	64,655	29,183	11,293	6,382	20,913	67,772	−3,117
1955 estimated	570	49,166	15,893	2,302	67,931	58,810	24,949	10,050	6,475	22,030	63,504	−4,694
1956 estimated	570	48,484	16,393	2,486	67,933	57,737	24,632	10,000	6,300	21,476	62,408	−4,671

[1] Beginning 1932, tonnage tax incl. in "Other receipts." [2] Net receipts equal total receipts less (a) appropriations to federal old-age and survivors' insurance trust fund beginning fiscal year 1937 and (b) refunds of receipts beginning fiscal year 1931. [3] Formerly War Department. [4] Includes Air Force: 1949—$1,690,460,724; 1950—$3,520,632,580; 1951—$6,358,603,828; 1952—$12,851,619,313; 1953—$15,085,000,000; 1954—$15,668,000,000; 1955 (est.)—$15,000,000,000.





Balance of Payments of the U. S., 1948-54 (in millions of dollars)

Source: Department of Commerce.

Item	1948	1949	1950	1951	1952	1953	1954
Exports of goods and services, total	17,058	16,033	14,396	20,282	20,661	21,265	20,751
Military transfers under aid program, total	300	210	526	1,470	2,603	4,281	3,137
Other goods and services, total	16,758	15,823	13,870	18,812	18,058	16,984	17,614
Imports of goods and services, total	10,295	9,661	12,053	15,068	15,688	16,424	15,813
Merchandise, adjusted (excl. military expenditures)	7,563	6,879	9,108	11,202	10,838	10,954	10,295
Transportation	646	700	818	974	1,115	1,058	1,013
Travel	600	678	727	722	811	895	972
Miscellaneous services	407	450	479	545	577	570	577
Military expenditures	799	621	576	1,270	1,957	2,496	2,533
Income on investments	280	333	345	355	390	451	423
Balance on goods and services	6,763	6,372	2,343	5,214	4,973	4,841	4,938
Net foreign payments	−4,807	−5,839	−4,544	−4,987	−5,137	−6,707	−5,274
Balance on goods, services and net foreign payments	1,956	533	−2,201	227	−164	−1,866	−336
U. S. capital, net [outflow of funds (−)], total	−1,930	−1,205	−1,421	−1,224	−1,578	−597	−1,437
Foreign capital, net [outflow of funds (−)], total	352	72	1,912	578	1,612	1,106	1,438
Gold sales [purchases (−)]	−1,530	−164	1,743	−53	−379	1,163	298
Foreign capital and gold, total	−1,178	−92	3,655	525	1,233	2,269	1,736
Errors and omissions	1,152	764	−33	472	509	194	37

Industrial Production Indexes for Western Europe

Source: United Nations.

(1948 = 100)

Country	1949	1950	1953	1954	Country	1949	1950	1953	1954
Austria	133	157	184	210	Italy	110	127	161	175
Belgium	100	102	114	124	Luxemburg	96	101	109	114
Denmark	106	119	121	129	Netherlands	112	123	146	160
France	110	111	127	139	Norway	106	124	142	151
Germany (Fed. Rep.)	144	182	251	280	Sweden	104	108	111	115
Greece	119	151	193	235	United Kingdom	106	114	121	129
Ireland	113	129	137	n.a.					

U. S. Exports of Leading Commodities

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Commodity	Value 1953	Value 1954
Crude materials:	1,626	1,896
Cotton, unmanufactured	521	788
Coal	335	304
Tobacco, unmanufactured	341	303
Soybeans	121	132
Crude petroleum	60	45
Other	248	324
Foodstuffs:	1,672	1,500
Grains and preparations	1,059	749
Wheat, including flour	589	427
Corn	233	130
Fruits and vegetables	242	272
Meats and edible animal fats	119	149
Dairy products and eggs	105	100
Other	147	230
Manufactures, including semimanufactures:	12,354	11,552
Excluding type I and II special category items	8,226	8,672
Machinery	2,747	2,582
Electrical machinery and apparatus	646	594
Generating, welding sets and generating sets	75	60
Household refrigerators, freezers and parts	88	74
Radio and television apparatus	102	128
Industrial machinery, total	1,545	1,456
Construction and mining machinery	492	444
Engines, turbines and parts	151	144
Metalworking and machine tools	279	208
Agricultural machinery & implements	138	126
Tractors, parts and accessories	300	278
Tracklaying tractors, new	110	95
Wheel tractors, new	91	80
Automobiles, parts and accessories	963	1,035
Motor trucks and buses, commercial, new	264	333
Passenger automobiles, commercial, new	276	301
Chemicals and related products	800	974
Medicinal and pharmaceutical preparations	217	244
Chemical specialties	265	326
Industrial chemicals	119	149
Textile manufactures	640	622
Cotton cloth, duck and tire fabric[1]	173	165
Broad woven fabrics of synthetic fibers[2]	85	92
Iron and steel-mill products including scrap	495	510
Petroleum products	438	386
Motor fuel and gasoline	76	45
Lubricating oils	86	95
Metal manufactures	343	341
Nonferrous metals and ferroalloys	144	243
Paper and manufactures	125	162
Rubber manufactures	102	109
Other	1,429	1,708

[1] Excludes pile, upholstery and drapery fabrics and remnants and mill ends. [2] Excludes tire fabrics.

U. S. Imports for Consumption of Leading Commodities

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Commodity	Value 1953	Value 1954
Crude materials:	2,613	2,412
Crude petroleum	510	544
Nonferrous ores and concentrates[1]	520	474
Manganese ores	106	77
Tungsten ore	92	76
Tin ore	83	42
Chrome ore	56	34
Copper ore and concentrates	56	66
Zinc-bearing ores	50	54
Lead ore and flue dust	15	48
Crude rubber	332	262
Wool, unmanufactured	296	223
Iron ore	97	119
Tobacco, unmanufactured	82	83
Oilseeds (mainly copra)	69	62
Undressed furs	68	67
Vegetable fibers, except cotton, unmanufactured	84	58
Hides and skins	74	53
Other	481	467
Foodstuffs:	3,293	3,315
Coffee	1,469	1,486
Cane sugar	425	409
Cocoa or cacao beans	167	252
Fruits, edible nuts and vegetables	245	225
Meat products	172	180
Alcoholic spirits and wines	145	147
Grains and preparations	169	93
Other	501	523
Semimanufactures:	2,678	2,310
Nonferrous metals[2]	1,087	854
Copper	370	281
Tin	188	143
Aluminum	145	99
Nickel metal and oxide	129	150
Lead	98	72
Zinc	51	34
Gas oil and fuel oil	237	254
Wood pulp	263	252
Sawmill products	236	252
Fertilizer materials	108	90
Vegetable oils, expressed, inedible	74	59
Iron and steel semimanufactures	133	42
Other	540	507
Finished manufactures:	2,194	2,195
Paper and manufactures	636	637
Newsprint	595	596
Textile manufactures	387	374
Burlaps	76	71
Cotton manufactures	72	76
Wool manufactures	98	90
Machinery, total	245	240
Agricultural implements and tractors	72	73
Vehicles and parts	108	119
Automobiles, new[3]	43	45
Steel-mill manufactures	123	78
Clocks, watches and parts	85	67
Other	610	680

[1] Includes ores of ferroalloying metals. [2] Includes ferroalloys. [3] Trucks, buses excluded.

U. S. Exports and General Imports by Countries and Areas

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Area and country	Exports, including re-exports			General imports		
	1949	1953	1954	1949	1953	1954
NORTH AND SOUTH AMERICA						
Canada	1,958.9	2,996.0	2,765.9	1,551.0	2,461.6	2,375.2
Mexico	468.2	645.5	627.7	243.5	354.5	327.9
Central American Republics	262.7	264.5	298.5	139.2	235.3	231.1
Costa Rica	27.0	37.9	40.0	22.4	35.0	33.1
El Salvador	25.8	37.2	41.3	40.2	65.2	61.2
Guatemala	44.9	44.5	47.2	43.3	63.3	65.5
Honduras	33.6	35.7	33.4	15.2	29.8	26.8
Nicaragua	15.7	26.1	36.7	6.7	24.9	26.0
Panama, Republic of	115.7	83.2	99.9	11.2	17.1	18.4
Cuba	380.3	426.6	428.2	387.5	431.1	401.3
Dominican Republic	38.3	47.5	52.0	24.4	52.3	72.0
Haiti	23.8	28.9	35.8	19.8	16.8	24.8
Argentina	130.8	104.3	122.4	97.5	181.9	102.8
Bolivia	36.2	18.8	30.6	48.5	62.1	47.0
Brazil	382.9	296.8	453.4	551.8	768.5	681.7
Chile	142.6	97.8	73.9	152.5	242.3	197.4
Columbia	175.9	285.4	341.1	241.5	466.1	506.5
Ecuador	32.4	41.5	47.5	17.1	44.9	60.9
Peru	86.1	119.1	96.5	40.2	86.9	96.2
Uruguay	34.7	24.7	43.3	54.0	52.6	31.1
Venezuela	518.5	513.2	530.6	278.1	440.5	503.7
Netherlands Antilles	75.9	81.6	63.1	111.4	157.1	164.5
EUROPE						
Western Europe	.....	2,868.5	3,347.8	.....	2,295.6	2,037.3
OEEC countries, total	.....	2,666.7	3,122.2	.....	2,157.5	1,909.4
Austria	151.0	60.3	37.3	9.6	35.2	29.8
Belgium and Luxemburg	307.7	235.5	266.1	94.2	236.0	191.6
Denmark	92.9	38.7	46.7	6.6	39.9	50.7
Ireland (Eire)	62.6	36.1	26.7	1.7	5.9	4.2
France	497.1	338.2	331.6	61.5	186.4	157.1
West Germany[1]	822.1	355.3	490.6	45.5	276.6	278.0
Greece	186.7	50.3	48.4	15.7	18.4	18.4
Iceland	8.4	13.4	12.3	2.2	7.4	9.6
Italy	458.0	286.4	301.9	70.9	158.6	141.5
Free Territory of Trieste	11.9	11.1	6.5	.....	.1	.1
Netherlands	283.4	258.3	420.3	59.3	191.8	159.0
Norway	90.5	64.7	67.6	30.7	67.0	57.2
Portugal	52.7	26.1	24.7	13.6	35.0	26.0
Sweden	87.4	102.4	118.8	54.4	107.9	75.6
Switzerland	142.6	134.4	154.5	93.1	161.4	145.1
Turkey	120.6	64.5	80.4	55.7	84.0	64.6
United Kingdom	700.2	591.1	687.9	227.6	546.0	500.7
Other Western Europe, total	.....	201.8	225.6	.....	138.1	128.0
Finland	26.3	22.2	28.3	27.4	42.4	39.5
Spain	50.4	70.2	97.6	24.3	63.3	64.8
Yugoslavia	20.9	109.4	99.7	14.9	32.4	23.7
Soviet Bloc	61.8	1.8	6.0	67.4	36.4	42.3
ASIA AND OCEANIA						
Western Asia	.....	268.8	274.5	.....	204.3	200.4
Kuwait	22.6	15.8	14.5	38.9	63.0	71.6
Lebanon	41.1	22.3	29.8	3.8	2.3	3.1
Iran	113.5	21.5	45.7	16.4	25.6	19.3
Iraq	13.1	18.9	27.6	5.7	16.2	16.3
Israel[2]	79.2	77.6	74.1	6.0	12.2	13.7
Saudi Arabia	84.8	76.6	43.3	19.9	66.9	59.0
Far East	.....	1,908.0	1,883.7	.....	1,623.1	1,427.3
British Malaya	37.6	31.0	30.7	195.6	211.3	168.5
Ceylon	18.7	7.2	6.8	34.8	30.9	28.6
Hong Kong	121.2	34.5	46.1	4.3	13.1	11.8
India	255.2	152.5	161.5	238.8	229.9	200.0
Indochina	18.2	36.6	50.4	1.1	16.7	22.3

Area and country	Exports, including re-exports			General imports		
	1949	1953	1954	1949	1953	1954
Indonesia, Republic of	124.5	104.3	70.8	120.4	214.7	166.7
Japan	467.5	670.6	678.1	82.0	261.5	278.9
Korea, Republic of [3]	52.3	96.0	86.6	1.4	29.9	19.7
Pakistan	45.8	98.5	32.9	27.7	25.8	23.4
Philippines, Republic of	439.2	351.9	324.3	204.7	276.5	260.3
Thailand (Siam)	31.6	57.0	42.6	48.0	70.0	54.3
Taiwan (Republic of China)	53.4	82.0	93.8	1.7	6.8	5.5
Australia	142.7	134.8	188.5	97.6	137.0	115.3
New Zealand	42.6	31.4	42.4	24.4	59.2	44.3
AFRICA						
Africa, total	.....	503.5	568.3	.....	593.3	604.4
Algeria	26.4	13.8	13.7	4.1	3.7	5.3
Angola	8.8	10.3	12.1	7.2	46.1	43.3
Belgian Congo	48.4	59.4	48.3	36.3	91.4	96.2
British East Africa, total [4]	16.8	12.0	6.6	21.3	39.1	32.1
British West Africa, total [5]	14.9	18.3	15.5	82.4	115.0	112.3
Egypt	52.8	60.3	39.9	9.4	26.4	20.4
Ethiopia	3.7	4.9	6.9	8.3	33.3	33.7
French Morocco	30.5	29.9	37.4	5.8	11.8	13.7
Liberia	51.9	15.8	81.4	10.8	27.7	27.3
Union of South Africa	266.0	207.4	228.5	116.4	91.8	90.3
Federation of Rhodesia and Nyasaland	10.2	8.3	10.4	15.3	67.9	47.2
French West Africa, total [6]	36.9	14.4	20.7	2.4	14.0	48.6

[1] Data prior to 1953 represent combined trade with East and West Germany. [2] Small trade with Palestine included prior to Jan. 1954. [3] Data prior to 1953 represent combined trade with North and South Korea. [4] British Somaliland, Seychelles and dependencies, Mauritius and dependencies, and other British East Africa. [5] Gold Coast, Nigeria, and British West Africa, n.e.c. [6] Cameroon, French Equatorial Africa, and other French West Africa.

U. S. Trade Agreements as of June 29, 1955

Source: U. S. Tariff Commission.

Country	Signed	Effective
Argentina	Oct. 14, 1941	Nov. 15, 1941
Australia	Nov. 13, 1947	Jan. 1, 1948
Austria	Sept. 19, 1951	Oct. 19, 1951
Belgium	Oct. 30, 1947	Jan. 1, 1948
Brazil	June 30, 1948	July 31, 1948
Burma	June 29, 1948	July 30, 1948
Canada	Oct. 30, 1947	Jan. 1, 1948
Ceylon	June 29, 1948	July 30, 1948
Chile	Feb. 14, 1949	Mar. 16, 1949
China	Terminated	.....
Colombia	Terminated	.....
Costa Rica	Terminated	.....
Cuba	Dec. 17, 1947	Jan. 1, 1948
Czechoslovakia	Suspended	.....
Denmark	April 28, 1950	May 28, 1950
Dominican Republic	April 19, 1950	May 19, 1950
Ecuador	Aug. 6, 1938	Oct. 23, 1938
El Salvador	Feb. 19, 1937	May 31, 1937
Finland	April 25, 1950	May 25, 1950
France	Nov. 13, 1947	Jan. 1, 1948
Germany (Fed. Rep.)	Sept. 1, 1951	Oct. 1, 1951
Greece	Feb. 7, 1950	Mar. 9, 1950
Guatemala	April 24, 1936	June 15, 1936
Haiti	Oct. 10, 1949	Jan. 1, 1950
Honduras	Dec. 18, 1935	Mar. 2, 1936
Iceland	Aug. 27, 1943	Nov. 19, 1943
India	June 8, 1948	July 9, 1948
Indonesia	Oct. 30, 1947	Mar. 11, 1948
Iran	April 8, 1943	June 28, 1944
Italy	April 30, 1950	May 30, 1950
Japan	June 8, 1955	(1)
Lebanon	Terminated	.....
Liberia	Terminated	.....
Luxemburg	Oct. 30, 1947	Jan. 1, 1948
Mexico	Terminated	.....
Netherlands	Oct. 30, 1947	Jan. 1, 1948
New Zealand	June 30, 1947	July 31, 1948
Nicaragua	April 28, 1950	May 28, 1950
Norway	June 10, 1948	July 11, 1948
Pakistan	June 30, 1948	July 31, 1948
Paraguay	Sept. 12, 1946	April 9, 1947
Peru	Sept. 7, 1951	Oct. 8, 1951
Rhodesia and Nyasaland	June 11, 1948	July 12, 1948
Sweden	Mar. 31, 1950	April 30, 1950
Switzerland	Jan. 9, 1936	Feb. 15, 1936
Syria	Terminated	.....
Turkey	Sept. 17, 1951	Oct. 17, 1951
Union of South Africa	May 14, 1948	June 14, 1948
United Kingdom	Oct. 30, 1947	Jan. 1, 1948
Uruguay	Nov. 16, 1953	Dec. 16, 1953
Venezuela	Nov. 6, 1939	Dec. 16, 1939

[1] Not yet effective.

Par Values of Member Currencies[1]

Source: International Monetary Fund.

Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar
Australia	Pound	224.000	0.446 429
Austria	Schilling	3.846 15	26.000 0
Belgium	Franc	2.000 00	50.000 0
Bolivia	Boliviano	0.526 316	190.000
Brazil	Cruzeiro	5.405 41	18.500 0
Burma	Kyat	21.000 0	4.761 90
Canada[2]	Dollar	....	....
Ceylon	Rupee	21.000 0	4.761 90
Chile	Peso	0.909 091	110.000
China	Yuan	3	3
Colombia	Peso	51.282 5	1.949 98
Costa Rica	Colón	17.809 4	5.615 00
Cuba	Peso	100.000	1.000 00
Denmark	Krone	14.477 8	6.907 14
Dominican Republic	Peso	100.000	1.000 00
Ecuador	Sucre	6.666 67	15.000 0
Egypt	Pound	287.156	0.348 242
El Salvador	Colón	40.000 0	2.500 00
Ethiopia	Dollar	40.250 0	2.484 47
Finland	Markka	0.434 783	230.000
France	Franc	3	3
Germany, Federal Republic of	Deutsche Mark	23.809 5	4.200 00
Greece	Drachma	3	3
Guatemala	Quetzal	100.000	1.000 00
Haiti	Gourde	20.000 0	5.000 00
Honduras	Lempira	50.000 0	2.000 00
Iceland	Króna	6.140 36	16.285 7
India	Rupee	21.000 0	4.761 90
Indonesia	Rupiah	3	3
Iran	Rial	3.100 78	32.250 0
Iraq	Dinar	280.000	0.357 143
Italy	Lira	3	3
Japan	Yen	0.277 778	360.000
Jordan, Hashemite Kingdom of	Dinar	280.000	0.357 143
Lebanon	Pound	45.631 3	2.191 48
Luxemburg	Franc	2.000 00	50.000 0
Mexico	Peso	8.000 00	12.500 0
Netherlands	Guilder	26.315 8	3.800 00
Nicaragua	Córdoba	7.000 00	14.2857
Norway	Krone	14.000 0	7.142 86
Pakistan	Rupee	30.225 0	3.308 52
Panamá	Balboa	100.000	1.000 00
Paraguay	Guaraní	6.666 67	15.000 0
Peru	Sol	4	4
Philippines	Peso	50.000 0	2.000 00
Sweden	Krona	19.330 4	5.173 21
Syria	Pound	45.631 3	2.191 48
Thailand	Baht	3	3
Turkey	Lira	35.714 3	2.800 00
Union of South Africa	Pound	280.000	0.357 143
United Kingdom	Pound	280.000	0.357 143
United States	Dollar	100.000	1.000 00
Uruguay	Peso	3	3
Venezuela	Bolivar	29.850 7	3.350 00
Yugoslavia	Dinar	0.333 333	300.000

[1] As of April 30, 1955. [2] No fixed value. [3] Par value not yet established. [4] In Nov. 1949, Peru introduced a new exchange system, but no agreement on a new par value has been reached.

Loans of the International Bank[1]
(in millions of U. S. dollars)

Country[2]	Principal[3]	Disbursed	Undisbursed
Australia	258.5	203.6	54.9
Austria	22.0	1.3	20.7
Belgium	66.0	49.2	16.8
Ceylon	19.1	2.1	17.0
Denmark	40.0	40.0	—
Ethiopia	8.5	7.1	1.4
Finland	50.1	35.1	15.0
France	250.0	250.0	—
Iceland	5.9	5.9	—
India	126.0	58.6	67.4
Iraq	6.3	6.3	—
Italy	90.0	20.0	70.0
Japan	40.2	27.5	12.7
Luxemburg	11.8	11.8	—
Mexico	141.3	87.7	53.6
Netherlands	221.5	221.5	—
Norway	50.0	35.0	15.0
Pakistan	58.2	29.4	28.8
Thailand	25.4	24.0	1.4
Turkey	61.0	34.6	26.4
Union of So. Africa	110.0	108.5	1.5
Yugoslavia	60.7	54.5	6.2
Total[4]	2,273.9	1,679.7	594.2

[1] As of June 30, 1955. [2] Loans are made directly to member governments and/or official institutions and private concerns. Loans not made directly to members are guaranteed by the member, or its central bank or comparable agency. [3] Principal after cancellations and refundings. [4] Includes loans to Central and South American nations and various areas in Africa.

ECA and MSA Allotments*
(millions of dollars)
Source: Foreign Operations Administration.

Country or purpose	Cumulative total	Fiscal year 1948–49[1]	1951[2]	1954
United Kingdom	3,800.0	1,619.7	298.4	....
France	3,198.4	1,313.4	433.1	85.9
Italy	1,617.3	668.0	244.0	21.3
Germany (Fed. Rep.)	1,491.1	613.5	399.1	19.8
Netherlands	988.8	507.0	101.9	4.3
Indonesia	101.4	64.1	....	....
Austria	725.2	280.0	114.3	—2.7
Greece	773.9	191.7	167.1	....
Belgium-Luxemburg	560.7	261.4	74.7	0.3
Denmark	280.9	126.2	45.1	0.3
Norway	277.1	101.1	46.1	0.3
Ireland	146.5	86.3	15.0	—0.02
Sweden	106.9	45.4	21.2	....
Yugoslavia	316.7	....	29.0	61.7
Portugal	51.2	....	11.7	0.2
Trieste (F.T.T.)	31.9	17.9	2.1	....
Iceland	35.2	8.3	8.4	0.1
Freight account	48.0	....	....	....
E. P. U. (U. S. contribution)	361.6	....	350.0	....
Far East	2,386.6	224.9	157.6	1,116.7
All countries	19,251.0	5,953.0	2,405.9	1,308.2

[1] 15 months. [2] Includes allotments made under the Mutual Defense Assistance Program, economic assistance funds transferred to MSA/ECA beginning July 1, 1950.
* April 1948–March 1955.

FEDERAL INCOME TAX

If you are a citizen or a resident of the nited States, and if your gross income for he year amounts to $600 or more, you are equired to file a return. This requirement applies to minors, as well as adults, nd must be met even if you do not pay tax.

If you are more than 65 years old, you re required to file only if your gross income is $1,200 or more.

You must pay part of your tax in installments in the year in which you earned he income. This is the "pay-as-you-go" ystem. You are generally required to pay he rest of your tax when you file your eturn. It may turn out that you don't we any additional tax when you file your return, or you may even be entitled to a refund, in which case the refund will be paid to you automatically after your return is filed.

The "pay-as-you-go" system works in two ways, through withholding and declaration of estimated tax. You may be subject to either or both of these requirements.

If you are married, you and your wife are allowed to report your combined income and your combined deductions on a single return. This is called a joint return. Your combined income is then taxed as though half were yours and half hers. This will usually result in a lower tax.

Withholding Table for Employees Paid Weekly

If the wages are—		And the number of withholding exemptions claimed is—										
		0	1	2	3	4	5	6	7	8	9	10 or more
At least	But less than	The amount of tax to be withheld shall be—										
0	$13	18% of wages	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
$13	$14	$2.40	.10	0	0	0	0	0	0	0	0	0
$14	$15	2.60	.30	0	0	0	0	0	0	0	0	0
$15	$16	2.80	.50	0	0	0	0	0	0	0	0	0
$16	$17	3.00	.70	0	0	0	0	0	0	0	0	0
$17	$18	3.20	.80	0	0	0	0	0	0	0	0	0
$18	$19	3.30	1.00	0	0	0	0	0	0	0	0	0
$19	$20	3.50	1.20	0	0	0	0	0	0	0	0	0
$20	$21	3.70	1.40	0	0	0	0	0	0	0	0	0
$21	$22	3.90	1.60	0	0	0	0	0	0	0	0	0
$22	$23	4.10	1.70	0	0	0	0	0	0	0	0	0
$23	$24	4.20	1.90	0	0	0	0	0	0	0	0	0
$24	$25	4.40	2.10	0	0	0	0	0	0	0	0	0
$25	$26	4.60	2.30	0	0	0	0	0	0	0	0	0
$26	$27	4.80	2.50	.20	0	0	0	0	0	0	0	0
$27	$28	5.00	2.60	.30	0	0	0	0	0	0	0	0
$28	$29	5.10	2.80	.50	0	0	0	0	0	0	0	0
$29	$30	5.30	3.00	.70	0	0	0	0	0	0	0	0
$30	$31	5.50	3.20	.90	0	0	0	0	0	0	0	0
$31	$32	5.70	3.40	1.10	0	0	0	0	0	0	0	0
$32	$33	5.90	3.50	1.20	0	0	0	0	0	0	0	0
$33	$34	6.00	3.70	1.40	0	0	0	0	0	0	0	0
$34	$35	6.20	3.90	1.60	0	0	0	0	0	0	0	0
$35	$36	6.40	4.10	1.80	0	0	0	0	0	0	0	0
$36	$37	6.60	4.30	2.00	0	0	0	0	0	0	0	0
$37	$38	6.80	4.40	2.10	0	0	0	0	0	0	0	0
$38	$39	6.90	4.60	2.30	0	0	0	0	0	0	0	0
$39	$40	7.10	4.80	2.50	.20	0	0	0	0	0	0	0
$40	$41	7.30	5.00	2.70	.40	0	0	0	0	0	0	0
$41	$42	7.50	5.20	2.90	.50	0	0	0	0	0	0	0
$42	$43	7.70	5.30	3.00	.70	0	0	0	0	0	0	0
$43	$44	7.80	5.50	3.20	.90	0	0	0	0	0	0	0

If the wages are—		And the number of withholding exemptions claimed is—										
		0	1	2	3	4	5	6	7	8	9	10 or more
At least	But less than	The amount of tax to be withheld shall be—										
$44	$45	8.00	5.70	3.40	1.10	0	0	0	0	0	0	0
$45	$46	8.20	5.90	3.60	1.30	0	0	0	0	0	0	0
$46	$47	8.40	6.10	3.80	1.40	0	0	0	0	0	0	0
$47	$48	8.60	6.20	3.90	1.60	0	0	0	0	0	0	0
$48	$49	8.70	6.40	4.10	1.80	0	0	0	0	0	0	0
$49	$50	8.90	6.60	4.30	2.00	0	0	0	0	0	0	0
$50	$51	9.10	6.80	4.50	2.20	0	0	0	0	0	0	0
$51	$52	9.30	7.00	4.70	2.30	0	0	0	0	0	0	0
$52	$53	9.50	7.10	4.80	2.50	.20	0	0	0	0	0	0
$53	$54	9.60	7.30	5.00	2.70	.40	0	0	0	0	0	0
$54	$55	9.80	7.50	5.20	2.90	.60	0	0	0	0	0	0
$55	$56	10.00	7.70	5.40	3.10	.80	0	0	0	0	0	0
$56	$57	10.20	7.90	5.60	3.20	.90	0	0	0	0	0	0
$57	$58	10.40	8.00	5.70	3.40	1.10	0	0	0	0	0	0
$58	$59	10.50	8.20	5.90	3.60	1.30	0	0	0	0	0	0
$59	$60	10.70	8.40	6.10	3.80	1.50	0	0	0	0	0	0
$60	$62	$11.00	$8.70	$6.40	$4.10	$1.70	$0	$0	$0	$0	$0	$0
$62	$64	11.30	9.00	6.70	4.40	2.10	0	0	0	0	0	0
$64	$66	11.70	9.40	7.10	4.80	2.50	.20	0	0	0	0	0
$66	$68	12.10	9.80	7.40	5.10	2.80	.50	0	0	0	0	0
$68	$70	12.40	10.10	7.80	5.50	3.20	.90	0	0	0	0	0
$70	$72	12.80	10.50	8.20	5.90	3.50	1.20	0	0	0	0	0
$72	$74	13.10	10.80	8.50	6.20	3.90	1.60	0	0	0	0	0
$74	$76	13.50	11.20	8.90	6.60	4.30	2.00	0	0	0	0	0
$76	$78	13.90	11.60	9.20	6.90	4.60	2.30	0	0	0	0	0
$78	$80	14.20	11.90	9.60	7.30	5.00	2.70	.40	0	0	0	0
$80	$82	14.60	12.30	10.00	7.70	5.30	3.00	.70	0	0	0	0
$82	$84	14.90	12.60	10.30	8.00	5.70	3.40	1.10	0	0	0	0
$84	$86	15.30	13.00	10.70	8.40	6.10	3.80	1.50	0	0	0	0
$86	$88	15.70	13.40	11.00	8.70	6.40	4.10	1.80	0	0	0	0
$88	$90	16.00	13.70	11.40	9.10	6.80	4.50	2.20	0	0	0	0
$90	$92	16.40	14.10	11.80	9.50	7.10	4.80	2.50	.20	0	0	0
$92	$94	16.70	14.40	12.10	9.80	7.50	5.20	2.90	.60	0	0	0
$94	$96	17.10	14.80	12.50	10.20	7.90	5.60	3.30	.90	0	0	0
$96	$98	17.50	15.20	12.80	10.50	8.20	5.90	3.60	1.30	0	0	0
$98	$100	17.80	15.50	13.20	10.90	8.60	6.30	4.00	1.70	0	0	0
$100	$105	18.50	16.10	13.80	11.50	9.20	6.90	4.60	2.30	0	0	0
$105	$110	19.40	17.00	14.70	12.40	10.10	7.80	5.50	3.20	.90	0	0
$110	$115	20.30	17.90	15.60	13.30	11.00	8.70	6.40	4.10	1.80	0	0
$115	$120	21.20	18.80	16.50	14.20	11.90	9.60	7.30	5.00	2.70	.40	0
$120	$125	22.10	19.70	17.40	15.10	12.80	10.50	8.20	5.90	3.60	1.30	0
$125	$130	23.00	20.60	18.30	16.00	13.70	11.40	9.10	6.80	4.50	2.20	0
$130	$135	23.90	21.50	19.20	16.90	14.60	12.30	10.00	7.70	5.40	3.10	.80
$135	$140	24.80	22.40	20.10	17.80	15.50	13.20	10.90	8.60	6.30	4.00	1.70
$140	$145	25.70	23.30	21.00	18.70	16.40	14.10	11.80	9.50	7.20	4.90	2.60
$145	$150	26.60	24.20	21.90	19.60	17.30	15.00	12.70	10.40	8.10	5.80	3.50
$150	$160	27.90	25.60	23.30	21.00	18.70	16.40	14.10	11.70	9.40	7.10	4.80
$160	$170	29.70	27.40	25.10	22.80	20.50	18.20	15.90	13.50	11.20	8.90	6.60
$170	$180	31.50	29.20	26.90	24.60	22.30	20.00	17.70	15.30	13.00	10.70	8.40
$180	$190	33.30	31.00	28.70	26.40	24.10	21.80	19.50	17.10	14.80	12.50	10.20
$190	$200	35.10	32.80	30.50	28.20	25.90	23.60	21.30	18.90	16.60	14.30	12.00
		18 percent of the excess over $200 plus—										
$200 and over		36.00	33.70	31.40	29.10	26.80	24.50	22.20	19.80	17.50	15.20	12.90

Rate Table for Separate Returns

If your taxable income is:	Your tax is:
Not over $2,000	20% of the taxable income
Over $ 2,000 but not over $ 4,000	$ 400, plus 22% of excess over $ 2,000
Over $ 4,000 but not over $ 6,000	$ 840, plus 26% of excess over $ 4,000
Over $ 6,000 but not over $ 8,000	$ 1,360, plus 30% of excess over $ 6,000
Over $ 8,000 but not over $ 10,000	$ 1,960, plus 34% of excess over $ 8,000
Over $ 10,000 but not over $ 12,000	$ 2,640, plus 38% of excess over $ 10,000
Over $ 12,000 but not over $ 14,000	$ 3,400, plus 43% of excess over $ 12,000
Over $ 14,000 but not over $ 16,000	$ 4,260, plus 47% of excess over $ 14,000
Over $ 16,000 but not over $ 18,000	$ 5,200, plus 50% of excess over $ 16,000
Over $ 18,000 but not over $ 20,000	$ 6,200, plus 53% of excess over $ 18,000
Over $ 20,000 but not over $ 22,000	$ 7,260, plus 56% of excess over $ 20,000
Over $ 22,000 but not over $ 26,000	$ 8,380, plus 59% of excess over $ 22,000
Over $ 26,000 but not over $ 32,000	$ 10,740, plus 62% of excess over $ 26,000
Over $ 32,000 but not over $ 38,000	$ 14,460, plus 65% of excess over $ 32,000
Over $ 38,000 but not over $ 44,000	$ 18,360, plus 69% of excess over $ 38,000
Over $ 44,000 but not over $ 50,000	$ 22,500, plus 72% of excess over $ 44,000
Over $ 50,000 but not over $ 60,000	$ 26,820, plus 75% of excess over $ 50,000
Over $ 60,000 but not over $ 70,000	$ 34,320, plus 78% of excess over $ 60,000
Over $ 70,000 but not over $ 80,000	$ 42,120, plus 81% of excess over $ 70,000
Over $ 80,000 but not over $ 90,000	$ 50,220, plus 84% of excess over $ 80,000
Over $ 90,000 but not over $100,000	$ 58,620, plus 87% of excess over $ 90,000
Over $100,000 but not over $150,000	$ 67,320, plus 89% of excess over $100,000*
Over $150,000 but not over $200,000	$111,820, plus 90% of excess over $150,000*
Over $200,000	$156,820, plus 91% of excess over $200,000*

* The tax cannot in any event be more than 87% of taxable income.

Rate Table for Head of Household Returns

If your taxable income is:	Your tax is:
Not over $2,000	20% of the taxable income
Over $ 2,000 but not over $ 4,000	$ 400, plus 21% of excess over $ 2,000
Over $ 4,000 but not over $ 6,000	$ 820, plus 24% of excess over $ 4,000
Over $ 6,000 but not over $ 8,000	$ 1,300, plus 26% of excess over $ 6,000
Over $ 8,000 but not over $ 10,000	$ 1,820, plus 30% of excess over $ 8,000
Over $ 10,000 but not over $ 12,000	$ 2,420, plus 32% of excess over $ 10,000
Over $ 12,000 but not over $ 14,000	$ 3,060, plus 36% of excess over $ 12,000
Over $ 14,000 but not over $ 16,000	$ 3,780, plus 39% of excess over $ 14,000
Over $ 16,000 but not over $ 18,000	$ 4,560, plus 42% of excess over $ 16,000
Over $ 18,000 but not over $ 20,000	$ 5,400, plus 43% of excess over $ 18,000
Over $ 20,000 but not over $ 22,000	$ 6,260, plus 47% of excess over $ 20,000
Over $ 22,000 but not over $ 24,000	$ 7,200, plus 49% of excess over $ 22,000
Over $ 24,000 but not over $ 28,000	$ 8,180, plus 52% of excess over $ 24,000
Over $ 28,000 but not over $ 32,000	$ 10,260, plus 54% of excess over $ 28,000
Over $ 32,000 but not over $ 38,000	$ 12,420, plus 58% of excess over $ 32,000
Over $ 38,000 but not over $ 44,000	$ 15,900, plus 62% of excess over $ 38,000
Over $ 44,000 but not over $ 50,000	$ 19,620, plus 66% of excess over $ 44,000
Over $ 50,000 but not over $ 60,000	$ 23,580, plus 68% of excess over $ 50,000
Over $ 60,000 but not over $ 70,000	$ 30,380, plus 71% of excess over $ 60,000
Over $ 70,000 but not over $ 80,000	$ 37,480, plus 74% of excess over $ 70,000
Over $ 80,000 but not over $ 90,000	$ 44,880, plus 76% of excess over $ 80,000
Over $ 90,000 but not over $100,000	$ 52,480, plus 80% of excess over $ 90,000
Over $100,000 but not over $150,000	$ 60,480, plus 83% of excess over $100,000
Over $150,000 but not over $200,000	$101,980, plus 87% of excess over $150,000
Over $200,000 but not over $300,000	$145,480, plus 90% of excess over $200,000*
Over $300,000	$235,480, plus 91% of excess over $300,000*

* The tax cannot in any event be more than 87% of taxable income.

Rate Table for Joint Returns

If your combined taxable income is:	Your tax is:
Not over $4,000	20% of taxable income
Over $ 4,000 but not over $ 8,000	$ 800, plus 22% of excess over $ 4,000
Over $ 8,000 but not over $ 12,000	$ 1,680, plus 26% of excess over $ 8,000
Over $ 12,000 but not over $ 16,000	$ 2,720, plus 30% of excess over $ 12,000
Over $ 16,000 but not over $ 20,000	$ 3,920, plus 34% of excess over $ 16,000

Rate Table for Joint Returns (contd.)

If your combined taxable income is:	Your tax is:
Over $ 20,000 but not over $ 24,000	$ 5,280, plus 38% of excess over $ 20,000
Over $ 24,000 but not over $ 28,000	$ 6,800, plus 43% of excess over $ 24,000
Over $ 28,000 but not over $ 32,000	$ 8,520, plus 47% of excess over $ 28,000
Over $ 32,000 but not over $ 36,000	$ 10,400, plus 50% of excess over $ 32,000
Over $ 36,000 but not over $ 40,000	$ 12,400, plus 53% of excess over $ 36,000
Over $ 40,000 but not over $ 44,000	$ 14,520, plus 56% of excess over $ 40,000
Over $ 44,000 but not over $ 52,000	$ 16,760, plus 59% of excess over $ 44,000
Over $ 52,000 but not over $ 64,000	$ 21,480, plus 62% of excess over $ 52,000
Over $ 64,000 but not over $ 76,000	$ 28,920, plus 65% of excess over $ 64,000
Over $ 76,000 but not over $ 88,000	$ 36,720, plus 69% of excess over $ 76,000
Over $ 88,000 but not over $100,000	$ 45,000, plus 72% of excess over $ 88,000
Over $100,000 but not over $120,000	$ 53,640, plus 75% of excess over $100,000
Over $120,000 but not over $140,000	$ 68,640, plus 78% of excess over $120,000
Over $140,000 but not over $160,000	$ 84,240, plus 81% of excess over $140,000
Over $160,000 but not over $180,000	$100,440, plus 84% of excess over $160,000
Over $180,000 but not over $200,000	$117,240, plus 87% of excess over $180,000
Over $200,000 but not over $300,000	$134,640, plus 89% of excess over $200,000*
Over $300,000 but not over $400,000	$223,640, plus 90% of excess over $300,000*
Over $400,000	$313,640, plus 91% of excess over $400,000*

* The tax cannot in any event be more than 87% of combined taxable income.

SOCIAL SECURITY

The Social Security Act was passed in 1935 and amended in 1939, 1950, 1952 and 1954. Of its 11 programs, 2 are insurance systems financed by payroll taxes: federal old-age and survivors' insurance and federal-state unemployment insurance. The other 9 provide federal grants-in-aid to the states for needy persons who are aged, blind, or permanently disabled, for dependent children, and for services in behalf of maternal health, child health, crippled children, child welfare, public health and vocational rehabilitation.

The administration of the Act is the responsibility of the Department of Health, Education and Welfare. Within the Department, the Social Security Administration, headed by the Commissioner, conducts most of the program.

Old-Age and Survivors' Insurance

WHO IS COVERED?

In addition to the people previously covered, the new law of 1954 provides coverage for about 10 million more people. Among these are owners and operators of farms, clergymen (treated as self-employed under the law), professional engineers, architects, accountants and funeral directors. It includes many more hired farm workers, household workers, state and local government workers, even if they are under a retirement system, and federal employees not covered by any other retirement system. The law extends coverage to American citizens working abroad for American firms. This includes Americans working on vessels or aircraft even of foreign registry. The new law liberalizes the coverage for fishermen and "home-workers"—people who do piece work at home.

In the self-employed category, about the only people not subject to the social security old-age tax are lawyers, doctors, dentists, osteopaths, veterinarians, chiropractors, naturopaths and optometrists.

If you are eligible for coverage under the old-age insurance provisions of the social security system and you do not have a social security card, you may apply for one at the nearest social security office. Also the officials will be able to clear up any questions you have about the new law.

WHO PAYS FOR THE INSURANCE AND HOW MUCH?

The social security tax will increase gradually from the present 2% to 4% in 1975. The following table gives the schedule:

Calendar Year	Workers and Employers Each to Pay	Self-Employed to Pay
1954–59	2%	3%
1960–64	2½%	3¾%
1965–69	3%	4½%
1970–74	3½%	5¼%
1975 & after	4%	6%

HOW MUCH DO YOU OR YOUR SURVIVORS GET?

The regular payments to persons already retired have been increased by the new law by $5.00 or more a month. Similar increases will go to the worker and his wife (over 65) and to widows (of any age) with dependent children. The table on page 739 summarizes the amounts payable to persons already on the rolls prior to August 1954.

A worker will not be fully covered by

Comparisons of Payments Under the Old Law and the New

(To Persons already on the rolls prior to Aug. 1954)

Avg. Monthly Wage	Worker		Worker and Wife	
	Old law	1954 Amendments	Old law	1954 Amendments
$ 45.00 or less	$25.00	$30.00	$ 37.50	$ 45.00
73.00	40.00	45.00	58.40	67.50
100.00	55.00	60.00	80.00	90.00
200.00	70.00	78.50	105.00	117.80
300.00	85.00	98.50	127.50	147.80

Avg. Monthly Wage	Widow, Widower Parent, or Child		Widow and one child		Widow and two children	
	Old law	1954 Amendments	Old law	1954 Amendments	Old law	1954 Amendments
$ 45.00 or less	$18.80	$30.00	$ 37.60	$ 45.00	$ 45.10	$ 50.20
73.00	30.00	33.80	58.40	67.60	58.50	67.60
100.00	41.30	45.00	80.00	90.00	80.00	90.20
200.00	52.50	58.90	105.00	117.80	140.10	157.10
300.00	63.80	73.90	127.60	147.80	168.90	197.10

the new law, that is, he will not be entitled to *all* of its benefits until his security taxes have been paid for at least 6 quarters (1½ years) after 1954.

The amount you get depends on your average monthly earnings. The new law allows you to bring your average up by omitting about 5 years of low or no earnings in figuring your average earnings. If a worker is totally disabled for a relatively long period (more than 6 months) before he reaches 65, his wages can be "frozen" at the level just before his disability. Under the old law, average wage for retirement purposes was determined by counting all the months before retirement, whether a man was idle or not. The new law allows the dropping out of years of no earnings or very low earnings, or periods of total disability. Payments would begin only at age 65, as with regular retirement. Applications for the total disability freeze will be accepted by the nearest social security office. Under an older law, veterans are permitted to count service time at the rate of $160 per month in computing average wage.

The maximum yearly earnings subject to tax has been raised to $4,200 (in place of $3,600) and the benefits have been increased accordingly.

The benefits paid to the retired worker at 65, or to his survivors, are shown on the table on page 740.

A retired worker may be fully covered and still not receive the full benefits of his insurance. He loses his benefit checks for any month in which he renders substantial services in self-employment. He also loses some benefits if he earns more than $1,200 during the year. This applies only to money earned, not to other sources of income such as other pension payments, gifts or dividends. From 65 to 72, he cannot earn more than $1,200 without losing at least one month's payment. If he earns more than $1,280, he loses a second month's payment. If he earns more than $1,360, he loses a third month's payment, and so on for each additional $80 earned. If his annual earnings exceed $2,080, he loses all the monthly payments. However, there is an important qualification to this rule. No matter how high his total earnings for the year, he does not lose the payments for any month in which he earns only $80 or less. Thus, if a retired worker earns $200 every month of the year, he loses his retirement benefits for all 12 months, but if he earns the entire $2,400 in a single month, he loses only one month's benefits.

After he has reached the age of 72, the insured worker receives his full pension no matter how much he earns.

In addition to retirement benefits at 65, this insurance also pays a lump-sum death benefit to survivors of at least $90 to $225, or three times the worker's monthly retirement benefit. If you are covered by social security and die leaving dependent children under 18, with or without a widow, those dependents will receive substantial monthly payments until all the children have passed 18. Under the 1954 law, these payments will range from $30 monthly for one child to $200 maximum for widow and 2 or more children, according to your average monthly wage, as shown in the table on page 740.

What You Get Under The New 1954 Law

Average Monthly Earnings after 1950[1]	Retirement Benefits		Survivors' Benefits		
	Worker's monthly benefit	Worker and Wife[2]	Widow, child, etc.	Widow and 1 child	Widow and 2 children
$ 45	$ 30.00	$ 45.00	$ 30.00	$ 45.00	$ 50.20
100	55.00	82.50	41.30	82.60	82.60
110	60.50	90.80	45.40	90.80	90.90
120	62.50	93.80	46.90	93.80	96.00
130	64.50	96.80	48.40	96.80	104.00
140	66.50	99.80	49.90	99.80	112.00
150	68.50	102.80	51.40	102.80	120.00
160	70.50	105.80	52.90	105.80	128.00
170	72.50	108.80	54.40	108.80	136.00
180	74.50	111.80	55.90	111.80	144.00
190	76.50	114.80	57.40	114.80	152.00
200	78.50	117.80	58.90	117.80	157.10
210	80.50	120.80	60.40	120.80	161.20
220	82.50	123.80	61.90	123.80	165.10
230	84.50	126.80	63.40	126.80	169.20
240	86.50	129.80	64.90	129.80	173.10
250	88.50	132.80	66.40	132.80	177.20
260	90.50	135.80	67.90	135.80	181.10
270	92.50	138.80	69.40	138.80	185.20
280	94.50	141.80	70.90	141.80	189.10
290	96.50	144.80	72.40	144.80	193.20
300	98.50	147.80	73.90	147.80	197.10
310[3]	100.50	150.80	75.40	150.80	200.00
320	102.50	153.80	76.90	153.80	200.00
330	104.50	156.80	78.40	156.80	200.00
340	106.50	159.80	79.90	159.80	200.00
350	108.50	162.80	81.40	162.80	200.00

[1] After drop-out of up to 5 years of lowest or no earnings. [2] She, too, must be 65 or over. [3] These rates are applicable to workers retiring or deceased after August 1954.

The law provides benefits to certain other survivors under conditions too complicated for our limited space.

Public Assistance

The original Social Security Act provided for needy persons not covered by the old-age pension system. Eventually the number of needy persons requiring public assistance should diminish, since they will be getting old-age pensions and survivors' insurance under the new provisions of the law.

Aid to the needy is conducted jointly by the states and the federal government. The federal contribution to the states for assistance to the needy aged and blind per month is: $20 of the first $25 and 50% of any amount between $25 and $55. The blind are permitted to earn up to $50 a month and still get full assistance. For dependent children, the federal government pays $12 of the first $15 and one-half the remainder up to $30 per month. To be eligible the child must be under 16 (or under 18 if still at school), without parental support or care and living with a member of the family.

Unemployment Insurance

Unlike the old-age pension law, which is completely run by the federal government, unemployment insurance is managed jointly by the states and the national government. Wisconsin had its own law in 1934; most other states began paying benefits in 1938 and 1939.

UNDER WHAT CONDITIONS CAN THE WORKER COLLECT?

The laws vary from state to state. In general, a waiting period of one week is required before collecting unemployment insurance; the worker must be able to work, must not have quit without good cause or have been discharged for misconduct; he must not be involved in a labor dispute; above all, he must be willing to take a job in his field at prevailing wage rates. Other restrictions on payments involve leaving for marriage, pregnancy or further education. Also, workers receiving vacation or dismissal pay, workmen's com-

pensation or veteran's allowances are considered ineligible.

The unemployed worker must go to the local state unemployment office to register his claim for unemployment benefits and must register for work. If a suitable opening is available in his field, he must accept it or lose his unemployment payments. If a worker moves out of his own state, he can still collect at his new residence; the state where he is now located will act as agent for the other state, which pays his benefits.

WHO PAYS FOR THE INSURANCE AND HOW MUCH?

The unemployment tax maximum is 3% of payroll; of this 0.3% must go to the federal government to pay for administering the law in the states; the remaining 2.7% or less is used solely for benefit payments by the state. The employer pays the complete tax in all states except in Alabama and New Jersey; in Alabama the employee pays from 0.1% to 1.0%; in New Jersey the employee pays ¼ of 1%. Tax payments are payable on only the first $3,000 of a worker's pay, except in Nevada where the limit was set at $3,600 in 1954.

Under the "merit-rating" system, used in most states, employers with records of steady employment (that is, few layoffs) are rewarded with rates lower than the standard 2.7%. This system rewards the employers in industries with little or no seasonal fluctuation, or where the employers have been able to eliminate seasonal ups and downs. Highly seasonal businesses are penalized by this device. The average tax rate in states with "merit-rating" is approximately 1.4%.

WHO IS COVERED AND WHO IS NOT?

Unemployment insurance must be paid by an employer having eight or more employees over 20 weeks in a year. Exempt workers include self-employed farm workers, domestic workers or members of the employer's family, railroad workers, insurance agents, workers in non-profit organizations, student nurses, internes and casual labor. Maritime workers have been included in most states since 1946.

Railroad Workers

These are covered by the Railroad Retirement Act, passed in 1935 and amended in 1937 and 1946. The social security provisions of this act are administered by the Railroad Retirement Board. It is paid for by taxing both employer and employee. The present rate is 6¼%.

It provides retirement benefits at 65 or over (in some cases at 60), dependents' and survivors' benefits and disability allowances.

The Board also administers the Railroad Insurance Act, which provides unemployment insurance, sickness compensation and maternity benefits. The present costs are paid by the employer at ½% on wages up to $300 a month. If benefits are increased, the rate may go from ½% to as high as 3%.

State Unemployment Compensation Maximums

State	Weekly benefit	Duration (in weeks)	State	Weekly benefit	Duration (in weeks)
Alabama	$22	20	Montana	$26	20
Alaska	45	26*	Nebraska	28	20
Arizona	23	26	Nevada	30	26*
Arkansas	26	18	New Hampshire	32	26
California	30	26	New Jersey	35	26
Colorado	28	20	New Mexico	30	24
Connecticut	35	26*	New York	36	26
Delaware	35	26	North Carolina	30	26
D. C.	30	26*	North Dakota	26	20*
Florida	26	16	Ohio	33	26*
Georgia	26	20	Oklahoma	28	22
Hawaii	35	20	Oregon	35	26
Idaho	30	26	Pennsylvania	35	30
Illinois	28	26*	Rhode Island	30	26
Indiana	30	20	South Carolina	26	22
Iowa	30	24	South Dakota	25	20
Kansas	32	20	Tennessee	30	22
Kentucky	28	26	Texas	28	24
Louisiana	25	20	Utah	33	26
Maine	30	23	Vermont	28	26
Maryland	30	26*	Virginia	24	16
Massachusetts	25	26*	Washington	35	26
Michigan	30	26*	West Virginia	30	24
Minnesota	33	26	Wisconsin	36	26½
Mississippi	30	16	Wyoming	30	26*
Missouri	25	24			

* This amount will be increased for unemployed persons with dependents.

THE UNITED NATIONS

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Its Major Cases and Actions

by Marcus Duffield

IRAN

Iran presented the first case before the Security Council on Jan. 19, 1946, demanding an end to Russian "interference" in Azerbaijan province, which Russia had brought under its control through a puppet government. Iran also demanded that Russia keep her promise to withdraw all occupation troops by Mar. 2. The Council kept the matter on the agenda. Russia withdrew her troops May 6.

GREECE

On Dec. 3, 1946, Greece complained to the Security Council that Communist-led rebels in northern Greece were being aided by Albania, Bulgaria and Yugoslavia. The Council named an investigating committee, which reported May 23, 1947, that those 3 nations were guilty. A Russian veto of July 29 prevented the Council's acceptance of the report. In Sept. 1948, the U. N. Balkan Commission, which continued to watch developments, again condemned the 3 nations for continuing aid to the Greek rebels. However, 3 months previously, on June 28, 1948, Marshal Tito's Yugoslavia had broken with Moscow. Thereafter, the Greek Communist-led rebellion faded out.

ATOMIC ENERGY CONTROL

On Dec. 31, 1946, a U. N. commission of 11 nations recommended the "Baruch plan" sponsored by the U. S. for international control and inspection. Only Russia dissented. In June 1947, she submitted a vastly different control plan, limiting international inspection so greatly that the secret making of atomic bombs could not be discovered. On May 17, 1948, the U. N. commission voted (9–2) to suspend work on international atomic control, blaming Russia for the deadlock. A Russian veto of June 22 prevented the Security Council from approving the majority-approved control plan. The topic then went to the General Assembly, which, on Nov. 4, 1948, adopted (40–6) the U. S.-sponsored plan; but nothing could be done to put it into effect because of Soviet-bloc opposition.

PALESTINE

A General Assembly special session met Apr. 28, 1947, at the request of Great Britain to consider Palestine. An 11-nation investigating commitee recommended Aug. 31 that Britain give up control and that an Arab and a Jewish state be established. This partition plan was approved by the Assembly in Nov. 1947, but proved impossible to enforce.

Britain ceased to govern Palestine on May 14, 1948. Israel proclaimed her independence and was attacked by 5 neighboring Arab nations. The U. N. made 6 appeals to both sides to stop the war; the last brought about a truce from June 11 to July 9. Intermittent fighting took place thereafter. Count Folke Bernadotte, the U. N. mediator, was murdered Sept. 17 near Jerusalem. He was succeeded by Dr. Ralph J. Bunche.

Israel signed an armistice with Egypt on Feb. 24, 1949, and with Jordan on Apr. 3. On May 11, the U. N. voted (37–12) to admit Israel as the 59th member.

INDONESIA

On July 30, 1947, Australia called the Security Council's attention to the fighting between the Netherlands and the Indonesian Republic. The Council, on Aug. 1, ordered both sides to cease hostilities. A Good Offices Commission was sent to Indonesia, and it effected a truce Jan. 17, 1948. In Dec. 1948, the Dutch attacked Jokjakarta, then the Indonesian capital, and the Council again issued a cease-fire order. Dutch troops were withdrawn from around Jokjakarta in July 1949. Indonesia thereafter peacefully achieved independence from the Netherlands.

ITALIAN COLONIES

On Sept. 15, 1948, after 3 years of argument, the Big 4 failed to agree on the disposition of the colonies which the peace treaty required Italy to give up. So, by a clause in the treaty, the question was referred to the General Assembly for settlement. The Assembly decided Nov. 21, 1949, that Libya should become independent on Jan. 1, 1952, and that Somaliland should be a U. N. trusteeship under Italian administration for 10 years, after which it would be independent. Eritrea was later federated with Ethiopia.

INDIA-PAKISTAN

On Jan. 2, 1948, India appealed to the U. N. to stop alleged aggression by Pakistan. Fighting had broken out over which nation should control the province of Kashmir. The Security Council sent a commission, which proposed that Kashmir's future be determined by a plebiscite. The Council agreed on Apr. 21, but both sides raised objections. Early in 1949, the U. N. commission succeeded in obtaining

a truce; and, on Mar. 14, 1950, the Council substituted a mediator, who was to seek demilitarization of the areas of Kashmir held by India and Pakistan and to try for a plebiscite. Two mediators failed.

MEMBERSHIP

In 1954, there were 21 nations that had applied for membership but not obtained it because of the East-West split. Fourteen of those nations were favored for admission by the West, but they had been blocked by Soviet vetoes; 7 were backed by Russia but opposed by the West.

The matter of admitting applicant nations was placed on the agenda of the Tenth General Assembly meeting in the autumn of 1955. Applicants then numbered 22, with the addition of Spain.

RUSSIAN BOYCOTT

Soviet Delegate Malik walked out of the Security Council on Jan. 13, 1950, because it had refused (6–3) Russia's demand that Nationalist China be replaced in the U. N. by Communist China. The boycott ended on Aug. 1. Again the Council voted (8–3) to refuse membership to Communist China.

KOREA

Russia occupied the northern half of Korea after World War II, and the U. S. occupied the southern half below the 38th parallel. The understanding was that the occupying powers would set up an independent republic to govern the entire country. Russia refused to co-operate. The U. S. then referred the problem to the U. N., and the General Assembly voted Nov. 5, 1947, to send a commission to Korea to set up a free government. Russia, however, boycotted the commission and refused to allow it to enter North Korea. The commission therefore supervised free elections in South Korea and assisted in setting up the Republic of Korea with its capital at Seoul.

(*For events after the warfare began in Korea, see Headline History of Our Times.*)

The 60 Members of the United Nations, Sept. 1955

Country	Signed U. N. Declaration[1]	Joined U. N. Organization[2]	League of Nations[3]	Country	Signed U. N. Declaration[1]	Joined U. N. Organization[2]	League of Nations[3]
Afghanistan	....	1946	1934–46	Iraq	1943	1945	1932–46
Argentina	1945	1945	1919–46	Israel	....	1949	.....
Australia	1942	1945	1920–46	Lebanon	1945	1945	.....
Belgium	1942	1945	1920–46	Liberia	1944	1945	1920–46
Bolivia	1943	1945	1920–46	Luxemburg	1942	1945	1920–46
Brazil	1943	1945	1920–28	Mexico	1942	1945	1931–46
Burma	....	1948	.....	Netherlands	1942	1945	1920–46
Byelorussian S.S.R.[4]	....	1945	.....	New Zealand	1942	1945	1920–46
Canada	1942	1945	1920–46	Nicaragua	1942	1945	1920–38
Chile	1945	1945	1919–40	Norway	1942	1945	1920–46
China	1942	1945	1920–46	Pakistan	....	1947	.....
Colombia	1944	1945	1920–46	Panamá	1942	1945	1920–46
Costa Rica	1942	1945	1920–26	Paraguay	1945	1945	1920–37
Cuba	1942	1945	1920–46	Peru	1945	1945	1920–41
Czechoslovakia	1942	1945	1920–46	Philippines	1942	1945	.....
Denmark[5]	....	1945	1920–46	Poland[6]	1942	1945	1920–46
Dominican Republic	1942	1945	1924–46	Saudi Arabia	1945	1945	.....
Ecuador	1945	1945	1934–46	South Africa, U. of	1942	1945	1920–46
Egypt	1945	1945	1937–46	Sweden	....	1946	1920–46
El Salvador	1942	1945	1920–39	Syria	1945	1945	.....
Ethiopia	1943	1945	1923–46	Thailand	....	1946	1920–46
France	1945	1945	1920–46	Turkey	1945	1945	1932–46
Greece	1942	1945	1920–46	Ukrainian S.S.R.[4]	....	1945	.....
Guatemala	1942	1945	1920–38	United Kingdom	1942	1945	1920–46
Haiti	1942	1945	1920–44	United States	1942	1945	.....
Honduras	1942	1945	1920–38	U.S.S.R.	1942	1945	1934–39
Iceland	....	1946	.....	Uruguay	1945	1945	1920–46
India	1942	1945	1920–46	Venezuela	1945	1945	1920–40
Indonesia	....	1950	.....	Yemen	....	1947	.....
Iran	1943	1945	1919–46	Yugoslavia	1942	1945	1920–46

[1] Declaration of United Nations was originally signed by 26 nations in Washington, D.C., on Jan. 1, 1942. [2] U. N. officially came into existence Oct. 24, 1945. [3] League was formally dissolved Apr. 18, 1946. Nations withdrawing before that time did so voluntarily, except U.S.S.R., which was expelled. Other members of League were: Albania (1920–46), Austria (1920–40), Bulgaria (1920–46), Eire (1923–46), Estonia (1921–46), Finland (1920–46), Germany (1926–35), Hungary (1922–41), Italy (1920–39), Japan (1920–35), Latvia (1921–46), Lithuania (1921–46), Portugal (1920–46), Rumania (1920–42), Spain (1920–41), Switzerland (1920–46). [4] Admission as separate nation approved at San Francisco Conference. [5] Invited to attend San Francisco Conference June 5, 1945, after its liberation. [6] Not represented at San Francisco Conference, but subsequently signed Charter as original member.

Principal Organs of the United Nations

(For functions, see Charter beginning on page 749)

SECRETARIAT

Secretaries-General

Trygve Lie, of Norway, Feb. 1, 1946, to Apr. 10, 1953.
Dag Hammarskjöld, of Sweden, Apr. 10, 1953, to the present.

Offices of the Secretary-General

Andrew W. Cordier, Executive Assistant to the Secretary-General.
Constantin Stavropoulos, Legal Counsel.
Bruce R. Turner, Controller.
J. A. C. Robertson, Director of Personnel.

Undersecretaries and Equivalent Rank

Ralph J. Bunche.*
Ilya S. Tchernychev.*
Dragoslav Protitch, Political and Security Council Affairs.
Philippe de Seynes, Economic and Social Affairs.
Benjamin A. Cohen, Trusteeship and Information from Non-Self-Governing Territories.
Ahmed S. Bokhari, Public Information.
Victor A. Hoo, Conference Services.
David B. Vaughan, Director in charge of the office of General Services.
Hugh L. Keenleyside, Director-General of the Technical Assistance Administration.
Maurice Pate, Executive Director of the U. N. Children's Fund.
David Owen, Executive Chairman of the Technical Assistance Board.

* Duties not confined to a single department.

GENERAL ASSEMBLY

The General Assembly is composed of all member nations (*see* p. 743). It deals with its work through 6 Main Committees.

Committees

First Committee (Political and Security, including the regulation of armaments).
Second Committee (Economic and Financial).
Third Committee (Social, Humanitarian and Cultural).
Fourth Committee (Trusteeship, including Non-Self-Governing Territories).
Fifth Committee (Administrative and Budgetary).
Sixth Committee (Legal).

Subsidiary Bodies

Interim Committee, consisting of representatives of all members; it functions between regular sessions.
Peace Observation Commission.
Collective Measures Committee.
Ad hoc committees and commissions established by the General Assembly from time to time.

Presidents of the General Assembly

Paul-Henri Spaak, of Belgium, 1946, First Session.
Oswaldo Aranha, of Brazil, 1947, First Special Session and Second Regular Session.
Dr. José Arce, of Argentina, 1948, Second Special Session.
Herbert V. Evatt, of Australia, 1948, Third Session.
Carlos P. Romulo, of The Philippines, 1949, Fourth Session.
Nasrollah Entezam, of Iran, 1950, Fifth Session.
Luis Padilla Nervo, of Mexico, 1951, Sixth Session.
Lester B. Pearson, of Canada, 1952, Seventh Session.
Mrs. Vijaya Lakshmi Pandit, of India, 1953, Eighth Session.
Eelco N. van Kleffens, of the Netherlands, 1954, Ninth Session.
José Mazá, of Chile, 1955, Tenth Session.

SECURITY COUNCIL

The Security Council is composed of 5 permanent members—China, France, the U.S.S.R., the United Kingdom and the U. S. There are 6 nonpermanent members.

Representatives (as of Jan., 1956*)

Australia: W. D. Forsyth.†
Belgium: Fernand van Langenhove.
China: Dr. Tingfu F. Tsiang.
Cuba: Dr. Emilio Nuñez-Portuondo.†
France: Henri Hoppenot.
Iran: Nasrollah Entezam.
Peru: Dr. Victor A. Belaunde.
Turkey: Selim Sarper.
U.S.S.R.: Arkadi A. Sobolev.
United Kingdom: Sir Pierson Dixon.
United States: Henry Cabot Lodge, Jr.

The Military Staff Committee is composed of the Chiefs of Staff of the 5 permanent members or their representatives; the Disarmament Commission, established by the General Assembly under the Security Council, has the same membership as the Council, plus Canada when not a member of the Council.

* Turkey is to be replaced. † Elected Oct. 1955.

ECONOMIC AND SOCIAL COUNCIL

The Economic and Social Council is composed of 18 nonpermanent members.

Representatives (as of 19th Session)*

Argentina: Dr. Juan I. Cooke.

Australia: Sir Douglas Berry Copland.
China: Dr. C. L. Hsia.
Czechoslovakia: Josef Ullrich.
Dominican Republic: Dr. Oscar G. Ginebra Henriquez.
Ecuador: Dr. José Vicente Trujillo.
Egypt: Omar Loutfi.
France: Pierre Abelin.
India: Arthur S. Lall.
Netherlands: D. U. Stikker.
Norway: Hans Engen.
Pakistan: Mohammad Mir Khan.
Turkey: Selim Sarper.
U.S.S.R.: Arkadi A. Sobolev.
United Kingdom: Sir Pierson Dixon.
United States: Preston Hotchkis.
Venezuela: Dr. Santiago Perez-Perez.
Yugoslavia: Dr. Joza Brilej.

* Canada, Brazil, Greece, Indonesia, the U. S. and Yugoslavia were elected in Oct. 1955 to 3-year terms beginning Jan. 1956. They replace Australia, India, Turkey and Venezuela. The U. S. and Yugoslavia were re-elected.

Functional Commissions

Transport and Communications Commission.
Statistical Commission.
Population Commission.
Social Commission.
Commission on Human Rights.
Commission on the Status of Women.
Commission on Narcotic Drugs.
Commission on International Commodity Trade.

Regional Commissions

Economic Commission for Europe.
Economic Commission for Asia and the Far East.
Economic Commission for Latin America.

The United Nations Children's Fund (UNICEF) was established by the General Assembly on Dec. 11, 1946.

Technical assistance is provided through the Technical Assistance Administration of the Secretariat.

TRUSTEESHIP COUNCIL

The Trusteeship Council is composed of 8 permanent members—Australia, Belgium, France, New Zealand, the United Kingdom and the U. S., which administer trust territories; and China and the U.S.S.R., which do not administer trust territories. There are also 4 nonpermanent members. Italy is a participant without voting power.

Representatives (as of 15th Session)

Australia: W. D. Forsyth.
Belgium: Pierre Ryckmans.
China: Dr. Shih-Shun Liu.
El Salvador: Dr. Miguel Rafael Urquia.
France: Robert Bargues.
Haiti: Max H. Dorsinville.
India: V. K. Khrishna Menon.
New Zealand: Sir Leslie Knox Munro.
Syria: Rafik Asha.
U.S.S.R.: Vasily F. Grubyakov.
United Kingdom: Sir Alan Cuthbert Burns.
United States: Mason Sears.

The Trusteeship Agreements concern the following territories (the Administering Authority in each case is in italics):

Nauru—*Australia (on behalf of Australia, New Zealand and the United Kingdom).*
New Guinea—*Australia.*
Ruanda-Urundi—*Belgium.*
Cameroons, Togoland } *France.*
Somaliland—*Italy.*
Western Samoa—*New Zealand.*
Cameroons, Togoland, Tanganyika } *United Kingdom.*

The Territory of the Pacific Islands—composed of the former Japanese-mandated islands of the Marshalls, Marianas (with the exception of Guam) and Carolines—is a strategic Trust Territory administered by the U. S.

The General Assembly decided at its Fourth Session in 1949 that former Italian Somaliland was to be placed under the Trusteeship System for 10 years, at the end of which time it would become independent. Italy became the Administering Authority on Apr. 1, 1950.

United Nations Headquarters

The first regular session of the General Assembly held at Central Hall, Westminster, London, voted that Interim Headquarters of the Organization should be located in New York. In August 1946, an Interim Headquarters was set up at Lake Success on Long Island, in a part of the Sperry Gyroscope Co.'s plant. The New York City building at Flushing Meadow, site of the 1939 World's Fair, was converted for the use of the General Assembly. The search for a permanent home ended in December 1946, when the General Assembly accepted an offer from John D. Rockefeller, Jr., of $8,500,000 for the purchase of the present Headquarters site—an 18-acre tract alongside Manhattan's East River. The United States Government loaned the United Nations $65,000,000 interest free, which is being repaid in annual installments, the first payment having been made in 1951.

Architectural plans drawn up by an international Board of Design were approved by the Assembly, and construction began in September 1948. By mid-1950, the 39-story Secretariat Building was ready for occupancy, and in the spring of 1951 "United Nations, New York" became the Organization's permanent address.

Nations Serving Terms on U. N. Councils

(For permanent members and members elected in Oct. 1955, see pages 744 and 745)

Security Council

Jan. 1946–Dec. 1946: Egypt; Mexico; Netherlands.
Jan. 1946–Dec. 1947: Australia; Brazil; Poland.
Jan. 1947–Dec. 1948: Belgium; Colombia; Syria.
Jan. 1948–Dec. 1949: Argentina; Canada; Ukrainian S.S.R.
Jan. 1949–Dec. 1950: Cuba; Egypt; Norway.
Jan. 1950–Dec. 1951: Ecuador; India; Yugoslavia.
Jan. 1951–Dec. 1952: Brazil; Netherlands; Turkey.
Jan. 1952–Dec. 1953: Chile; Greece; Pakistan.
Jan. 1953–Dec. 1954: Colombia; Denmark; Lebanon.
Jan. 1954–Dec. 1955: Brazil; New Zealand; Turkey.
Jan. 1955–Dec. 1956: Belgium, Iran, Peru.

Economic and Social Council

Jan. 1946–Dec. 1946: Colombia; Greece; Lebanon; Ukrainian S.S.R.; U. S.; Yugoslavia.
Jan. 1946–Dec. 1947: Cuba; Czechoslovakia; India; Norway; United Kingdom; U.S.S.R.
Jan. 1946–Dec. 1948: Belgium; Canada; Chile; China; France; Peru.
Jan. 1947–Dec. 1949: Byelorussian S.S.R.; Lebanon; New Zealand; Turkey; U. S.; Venezuela.
Jan. 1948–Dec. 1950: Australia; Brazil; Denmark; Poland; United Kingdom; U.S.S.R.
Jan. 1949–Dec. 1951: Belgium; Chile; China; France; India; Peru.
Jan. 1950–Dec. 1952: Canada; Czechoslovakia; Iran; Mexico; Pakistan; U. S.
Jan. 1951–Dec. 1953: Philippines; Poland; Sweden; United Kingdom; Uruguay; U.S.S.R.
Jan. 1952–Dec. 1954: Argentina; Belgium; China; Cuba; France; Egypt.
Jan. 1953–Dec. 1955: Australia; India; Turkey; U. S.; Venezuela; Yugoslavia.
Jan. 1954–Dec. 1956: Czechoslovakia; Ecuador; Norway; Pakistan; United Kingdom; U.S.S.R.
Jan. 1955–Dec. 1957: Argentina; China; Dominican Republic; Egypt; France; Netherlands.

Trusteeship Council

Jan. 1947–Dec. 1949: Iraq; Mexico.
Jan. 1948–Dec. 1950: Costa Rica (resigned 1949 and replaced by Dominican Republic); Philippines.
Jan. 1950–Dec. 1952: Argentina (resigned 1951 and replaced by El Salvador); Iraq.
Jan. 1951–Dec. 1953: Dominican Republic; Thailand.
Jan. 1953–Dec. 1955: El Salvador; Syria.
Jan. 1954–Dec. 1956: Haiti; India.

Specialized Agencies of the United Nations

Source: U. N. Dept. of Public Information (Research Section)

Food and Agriculture Organization of the United Nations (FAO)

Established: Oct. 16, 1945, when constitution was signed in Quebec.

Purposes: To raise nutrition levels and living standards; to secure improvements in production and distribution of food and agricultural products.

Headquarters: Viale delle Terme Di Caracalla, Rome, Italy.

Inter-Governmental Maritime Consultative Organization (IMCO)

Established: Will come into existence when 21 nations, of which 7 must each have a total tonnage of at least one million gross tons of shipping, have become parties to convention drawn up by U. N. Maritime Conference at Geneva, Feb. 19 to Mar. 6, 1948. (Preparatory Committee established by Conference will cease to exist after IMCO comes into being.)

Purposes: To promote co-operation among governments in technical problems of international shipping and to encourage removal of discriminatory action by governments and of unfair restrictive practices by shipping concerns.

Headquarters: To be in London.

International Bank for Reconstruction and Development (Bank)

Established: Dec. 27, 1945, when 28 nations signed Articles of Agreement drawn up at Bretton Woods Conference in July, 1944.

Purposes: To assist in reconstruction and development of economies of members by making loans directly and promoting private foreign investment; to promote balanced growth of international trade.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Civil Aviation Organization (ICAO)

Established: Apr. 4, 1947, 30 days after 26th nation ratified Convention on International Civil Aviation adopted Dec. 7, 1944, by Chicago International Civil Aviation Conference.

Purposes: To study problems of international civil aviation and establish international standards and regulations.

Headquarters: International Aviation Bldg., Montreal, Canada.

International Labour Organisation (ILO)

Established: Apr. 11, 1919, when consti-

ution was adopted as Part XIII of Treaty of Versailles.

Purposes: To contribute to establishment of lasting peace by promoting social justice; to improve, through international action, labor conditions and living standards; to promote economic and social stability.

Headquarters: Geneva, Switzerland.

International Monetary Fund (Fund)

Established: Dec. 27, 1945, when nations whose quotas amounted to 80% of Fund's resources had signed Articles of Agreement drawn up at Bretton Woods.

Purposes: To promote international monetary co-operation and expansion of international trade; to promote exchange stability; to assist in establishment of multilateral system of payments in respect of current transactions between members.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Telecommunication Union (ITU)

Established: Jan. 1, 1934, when International Telecommunication Convention adopted on Dec. 9, 1932, at Madrid Conference became effective.

Purposes: To maintain and extend international co-operation for improvement and rational use of all kinds of telecommunication and to promote development and most efficient operation of technical facilities.

Headquarters: Palais Wilson, Geneva, Switzerland.

International Trade Organization (ITO)

Established: Will come into existence when sufficient number of countries have ratified Havana Charter drawn up by U. N. Conference on Trade and Employment at Havana, Cuba, Nov. 21, 1947, to Mar. 24, 1948. (Interim Commission established by Conference will cease to exist after ITO comes into being.)

Purposes: To promote expansion of world trade and removal of trade barriers.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

Established: Nov. 4, 1946, when 20th signatory to constitution deposited instrument of acceptance with government of United Kingdom.

Purposes: To promote collaboration among nations through education, science and culture in order to further justice, rule of law and human rights and freedoms without distinction of race, sex, language or religion.

Headquarters: 19 Ave. Kléber, Paris, 16, France.

Universal Postal Union (UPU)

Established: Oct. 9, 1874, by Postal Convention of Bern, Switzerland, effective July 1, 1875.

Purposes: To assure organization and perfecting of various postal services and to promote development of international collaboration. To this end, member countries are united in single postal territory for reciprocal exchange of mail.

Headquarters: Schosshaldenstrasse 46, Bern, Switzerland.

World Health Organization (WHO)

Established: Apr. 7, 1948, when 26 members of the United Nations had accepted its constitution adopted July 22, 1946, by International Health Conference in New York City.

Purposes: To aid attainment by all peoples of the world of highest possible level of health.

Headquarters: Palais des Nations, Geneva, Switzerland.

World Meteorological Organization (WMO)

Established: Mar. 23, 1950, 30 days after deposit with government of U. S. of 30th instrument of ratification of or accession to convention adopted in Washington, D. C., Oct. 11, 1947, by twelfth Conference of Directors of International Meteorological Organization (IMO).

Purposes: To facilitate world-wide co-operation and promote standardization in making of meteorological observations; to further application of meteorology to various human activities.

Headquarters: Avenue de la Paix, Campagne Rigot, Geneva, Switzerland.

Judges of the International Court of Justice

(Judges serve for a 9-year term and may be re-elected. Expiration dates of terms are shown in parentheses. The seat of the Court is The Hague, Netherlands.)

President: Green H. Hackworth, U. S. (1961)
Vice President: Abdel Hamid Badawi, Egypt (1958)

J. C. Armand-Ugón, Uruguay (1961)
Jules Basdevant, France (1964)
Roberto Córdova, Mexico (1964)
José Gustavo Guerrero, El Salvador (1964)
Muhammad Zafrulla Khan, Pakistan (1961)
Helge Klaestad, Norway (1961)
F. I. Kojevnikov, U.S.S.R. (1961)
Hersch Lauterpacht, U. K. (1964)
Hsu Mo, China (1958)
L. M. Moreno Quintana, Argentina (1964)
John E. Read, Canada (1958)
Bohdan Winiarski, Poland (1958)
Milovan Zoričić, Yugoslavia (1958)

Delegation Heads to the United Nations

Members Represented at Headquarters*

Afghanistan: Abdul Hamid Aziz
Argentina: Dr. Juan I. Cooke
Australia: W. D. Forsyth
Belgium: Fernand van Langenhove
Bolivia: Dr. Germán Quiroga-Galdo
Brazil: Cyro de Freitas-Valle
Burma: Thray Sithu James Barrington
Canada: D. M. Johnson
Chile: Rudecindo Ortega
China: Dr. Tingfu F. Tsiang
Colombia: Dr. Francisco Urrutia
Costa Rica: Rev. Benjamin Nuñez
Cuba: Dr. Emilio Nuñez-Portuondo
Czechoslovakia: Josef Ulrich
Denmark: William Borberg
Dominican Republic: Dr. Tulio Franco y Franco
Ecuador: Dr. José Vicente Trujillo
Egypt: (vacant)
El Salvador: Dr. Miguel Rafael Urquia
Ethiopia: Ato Zaudi Heywot
France: Henri Hoppenot
Greece: Christian X. Palamas
Guatamala: Emilio Raenales Catalan
Haiti: Dr. Jean Price-Mars
Honduras: Tiburcio Carias, Jr.
Iceland: Thor Thors
India: Arthur S. Lall
Indonesia: Dr. Sudjarwo Tjondronegoro
Iran: (vacant)
Iraq: Awni Khalidy
Israel: Abba Eban
Lebanon: Edward Rizk
Liberia: Charles T. O. King
Mexico: Rafael de la Colina
Netherlands: C. W. A. Schurmann
New Zealand: Sir Leslie Knox Munro
Nicaragua: Dr. Guillermo Sevilla-Sacasa
Norway: Hans Engen
Pakistan: Mohammad Mir Khan
Panamá: Roberto de la Guardia
Paraguay: Dr. Pacífico Montero de Vargas
Peru: Carlos Holguin
Philippines: Felixberto M. Serrano
Poland: Henryk Birecki
Saudi Arabia: Sheikh Asad Al-Faqih
Sweden: Oscar Thorsing
Syria: Rafik Asha
Thailand: Prince Wan Waithayakon
Turkey: Selim Sarper
Union of South Africa: Wentzel Christoffel du Plessis
U.S.S.R.: Arkadi A. Sobolev
United Kingdom: Sir Pierson Dixon
United States: Henry Cabot Lodge, Jr.
Uruguay: Prof. Enrique Rodriguez Fabregat
Venezuela: Dr. Santiago Perez-Perez
Yemen: Mohamed Kamil Abdul Rahim
Yugoslavia: Dr. Joza Brilej

* Permanent representative to U. N. as of June 1955.

U. S. Permanent Mission to U. N.

Henry Cabot Lodge, Jr., Ambassador Extraordinary and Plenipotentiary, Permament Representative to the United Nations.

James J. Wadsworth, Ambassador Extraordinary and Plenipotentiary, Deputy Representative to the United Nations.

Brigadier General C. Stanton Babcock, Counselor.

Mason Sears, Representative on the Trusteeship Council.

Preston Hotchkis, Representative on the Economic and Social Council.

James W. Barco, Senior Adviser, Political and Security Council Affairs.

William O. Hall, Senior Adviser, International Organization Affairs.

Nat B. King, Senior Adviser, Economic and Social Affairs.

U. S. Delegation to the 10th Session of General Assembly

(September 1955)

The Secretary of State, John Foster Dulles, will serve as Senior Representative ex officio during his presence at the session.

Representatives

Henry Cabot Lodge, Jr., Chairman of the Delegation.
Brooks Hays, Member of Congress.
Chester E. Merrow, Member of Congress
John O. Pastore, Senator.
Colgate Whitehead Darden, Jr.

Alternate Representatives

Robert L. Brokenburr.
Laird Bell.
Jacob Blaustein.
James J. Wadsworth.
Mrs. Oswald B. Lord.

United Nations Costs

The estimated regular United Nations budget for 1955 was $46,963,800. The cost is apportioned among the member nations according to a formula which takes into account per capita income of each nation. In 1955 the United States paid one-third of the cost. The Soviet Union paid 15.08%. The United Kingdom paid 8.85%.

The U. N. Flag

The United Nations has its own flag which is light blue. In the center is the U. N. symbol, a polar map of the world embraced by olive branches, in white. The General Assembly adopted the flag on October 20, 1947.

The official languages of the U. N. are English, French, Spanish, Russian and Chinese.

CHARTER OF THE UNITED NATIONS

WE the peoples of the United Nations determined to save succeeding generations from the scourge of war, which vice in our lifetime has brought untold orrow to mankind, and

To reaffirm faith in fundamental human ghts, in the dignity and worth of the uman person, in the equal rights of men nd women and of nations large and small, nd

To establish conditions under which jusce and respect for the obligations arising om treaties and other sources of interational law can be maintained, and

To promote social progress and better andards of life in larger freedom, and r these ends

To practice tolerance and live together peace with one another as good neighors, and

To unite our strength to maintain interational peace and security, and

To insure, by the acceptance of princies and the institution of methods, that rmed force shall not be used, save in the ommon interest, and

To employ international machinery for ie promotion of the economic and social lvancement of all peoples, have resolved combine our efforts to accomplish these ms.

Accordingly, our respective Governments, rough representatives assembled in the ty of San Francisco, who have exhibited eir full powers found to be in good and ie form, have agreed to the present harter of the United Nations and do ereby establish an international organtion to be known as the United Nations.

CHAPTER I

Purposes and Principles

Article 1

The purposes of the United Nations are:

1. To maintain international peace and curity, and to that end: to take effective llective measures for the prevention and moval of threats to the peace, and for the ppression of acts of aggression or other eaches of the peace, and to bring about peaceful means, and in conformity with e principles of justice and international w, adjustment or settlement of internaonal disputes or situations which might ad to a breach of the peace;

2. To develop friendly relations among tions based on respect for the principle equal rights and self-determination of opies, and to take other appropriate easures to strengthen universal peace;

3. To achieve international cooperation solving international problems of an onomic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and

4. To be a center for harmonizing the actions of nations in the attainment of these common ends.

Article 2

The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles:

1. The Organization is based on the principle of the sovereign equality of all its Members.

2. All Members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.

3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.

4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

5. All Members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.

6. The Organization shall ensure that states which are not Members of the United Nations act in accordance with these Principles so far as may be necessary for the maintenance of international peace and security.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

CHAPTER II

Membership

Article 3

The original Members of the United Nations shall be the states which, having participated in the United Nations Conference on International Organization at San Francisco, or having previously signed

the Declaration by United Nations of January 1, 1942, sign the present Charter and ratify it in accordance with Article 110.

Article 4

1. Membership in the United Nations is open to all other peace-loving states which accept the obligations contained in the present Charter and, in the judgment of the Organization, are able and willing to carry out these obligations.

2. The admission of any such state to membership in the United Nations will be effected by a decision of the General Assembly upon the recommendation of the Security Council.

Article 5

A Member of the United Nations against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly upon the recommendation of the Security Council. The exercise of these rights and privileges may be restored by the Security Council.

Article 6

A Member of the United Nations which has persistently violated the Principles contained in the present Charter may be expelled from the Organization by the General Assembly upon the recommendation of the Security Council.

CHAPTER III

Organs

Article 7

1. There are established as the principal organs of the United Nations; a General Assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice, and a Secretariat.

2. Such subsidiary organs as may be found necessary may be established in accordance with the present Charter.

Article 8

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs.

CHAPTER IV

The General Assembly

Composition

Article 9

1. The General Assembly shall consist of all the members of the United Nations.

2. Each Member shall have not more than five representatives in the General Assembly.

Functions and Powers

Article 10

The General Assembly may discuss any questions or any matters within the scope of the present Charter or relating to the powers and functions of any organs provided for in the present Charter, and, except as provided in Article 12, may make recommendations to the Members of the United Nations or to the Security Council or to both on any such questions or matters.

Article 11

1. The General Assembly may consider the general principles of cooperation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the Members or to the Security Council or to both.

2. The General Assembly may discuss any questions relating to the maintenance of international peace and security brought before it by any Member of the United Nations, or by the Security Council, or by a state which is not a Member of the United Nations, in accordance with Article 35, paragraph 2, and, except as provided in Article 12, may make recommendations with regard to any such question to the state or states concerned or to the Security Council or to both. Any such question on which action is necessary shall be referred to the Security Council by the General Assembly either before or after discussion.

3. The General Assembly may call the attention of the Security Council to situations which are likely to endanger international peace and security.

4. The powers of the General Assembly set forth in this Article shall not limit the general scope of Article 10.

Article 12

1. While the Security Council is exercising in respect of any dispute or situation the functions assigned to it in the present Charter, the General Assembly shall not make any recommendations with regard to that dispute or situation unless the Security Council so requests.

2. The Secretary-General, with the consent of the Security Council, shall notify the General Assembly at each session of any matters relative to the maintenance of international peace and security which are being dealt with by the Security Council and shall similarly notify the General Assembly, or the Members of the United Na-

ions if the General Assembly is not in ession, immediately the Security Council eases to deal with such matters.

Article 13

1. The General Assembly shall initiate tudies and make recommendations for the urpose of:

(a) promoting international coopera-ion in the political field and encouraging ne progressive development of interna-ional law and its codification;

(b) promoting international coopera-ion in the economic, social, cultural, edu-ational, and health fields, and assisting in ne realization of human rights and fun-amental freedoms for all without distinc-on as to race, sex, language, or religion.

2. The further responsibilities, functions nd powers of the General Assembly with espect to matters mentioned in paragraph (b) above are set forth in Chapters IX nd X.

Article 14

Subject to the provisions of Article 12, ne General Assembly may recommend easures for the peaceful adjustment of ny situation, regardless of origin, which deems likely to impair the general wel-are or friendly relations among nations, ncluding situations resulting from a vio-tion of the provisions of the present harter setting forth the Purposes and rinciples of the United Nations.

Article 15

1. The General Assembly shall receive nd consider annual and special reports om the Security Council; these reports hall include an account of the measures hat the Security Council has decided upon taken to maintain international peace nd security.

2. The General Assembly shall receive nd consider reports from the other or-ans of the United Nations.

Article 16

The General Assembly shall perform uch functions with respect to the inter-ational trusteeship system as are assigned it under Chapters XII and XIII, in-uding the approval of the trusteeship greements for areas not designated as rategic.

Article 17

1. The General Assembly shall consider nd approve the budget of the Organiza-on.

2. The expenses of the Organization shall borne by the Members as apportioned the General Assembly.

3. The General Assembly shall consider nd approve any financial and budgetary rangements with specialized agencies re-ferred to in Article 57 and shall examine the administrative budgets of such specialized agencies with a view to making recommendations to the agencies concerned.

Voting

Article 18

1. Each member of the General Assembly shall have one vote.

2. Decisions of the General Assembly on important questions shall be made by a two-thirds majority of the members present and voting. These questions shall include: recommendations with respect to the maintenance of international peace and security, the election of the non-permanent members of the Security Council, the election of the members of the Economic and Social Council, the election of members of the Trusteeship Council in accordance with paragraph 1 (c) of Article 86, the admission of new Members to the United Nations, the suspension of the rights and privileges of membership, the expulsion of Members, questions relating to the operation of the trusteeship system, and budgetary questions.

3. Decisions on other questions, including the determination of additional categories of questions to be decided by a two-thirds majority, shall be made by a majority of the members present and voting.

Article 19

A Member of the United Nations which is in arrears in the payment of its financial contributions to the Organization shall have no vote in the General Assembly if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The General Assembly may, nevertheless, permit such a Member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the Member.

Procedure

Article 20

The General Assembly shall meet in regular annual sessions and in such special sessions as occasion may require. Special sessions shall be convoked by the Secretary-General at the request of the Security Council or of a majority of the Members of the United Nations.

Article 21

The General Assembly shall adopt its own rules of procedure. It shall elect its President for each session.

Article 22

The General Assembly may establish such subsidiary organs as it deems necessary for the performance of its functions.

CHAPTER V

The Security Council

Composition

Article 23

1. The Security Council shall consist of eleven Members of the United Nations. The Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America shall be permanent members of the Security Council. The General Assembly shall elect six other Members of the United Nations to be non-permanent members of the Security Council, due regard being specially paid, in the first instance to the contribution of members of the United Nations to the maintenance of international peace and security and to the other purposes of the Organization, and also to equitable geographical distribution.

2. The non-permanent members of the Security Council shall be elected for a term of two years. In the first election of the non-permanent members, however, three shall be chosen for a term of one year. A retiring member shall not be eligible for immediate re-election.

3. Each member of the Security Council shall have one representative.

Functions and Powers

Article 24

1. In order to insure prompt and effective action by the United Nations, its Members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf.

2. In discharging these duties the Security Council shall act in accordance with the Purposes and Principles of the United Nations. The specific powers granted to the Security Council for the discharge of these duties are laid down in Chapters VI, VII, VIII, and XII.

3. The Security Council shall submit annual and, when necessary, special reports to the General Assembly for its consideration.

Article 25

The Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.

Article 26

In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and economic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee referred to in Article 47, plans to be submitted to the Members of the United Nations for the establishment of a system for the regulation of armaments.

Voting

Article 27

1. Each member of the Security Council shall have one vote.

2. Decisions of the Security Council on procedural matters shall be made by an affirmative vote of seven members.

3. Decisions of the Security Council on all other matters shall be made by an affirmative vote of seven members including the concurring votes of the permanent members; provided that, in decisions under Chapter VI, and under paragraph 3 of Article 52, a party to a dispute shall abstain from voting.

Procedure

Article 28

1. The Security Council shall be so organized as to be able to function continuously. Each member of the Security Council shall for this purpose be represented at all times at the seat of the Organization.

2. The Security Council shall hold periodic meetings at which each of its members may, if it so desires, be represented by a member of the government or by some other specially designated representative.

3. The Security Council may hold meetings at such places other than the seat of the Organization as in its judgment will best facilitate its work.

Article 29

The Security Council may establish such subsidiary organs as it deems necessary for the performance of its functions.

Article 30

The Security Council shall adopt its own rules of procedure, including the method of selecting its President.

Article 31

Any Member of the United Nations which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that Member are specially affected.

Article 32

Any Member of the United Nations which is not a member of the Securi

Council or any state which is not a Member of the United Nations, if it is a party to a dispute under consideration by the Security Council, shall be invited to participate, without vote, in the discussion relating to the dispute. The Security Council shall lay down such conditions as it deems just for the participation of a state which is not a Member of the United Nations.

CHAPTER VI

Pacific Settlement of Disputes

Article 33

1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means.

Article 34

The Security Council may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.

Article 35

1. Any Member of the United Nations may bring any dispute, or any situation of the nature referred to in Article 34 to the attention of the Security Council or of the General Assembly.

2. A state which is not a Member of the United Nations may bring to the attention of the Security Council or of the General Assembly any dispute to which it is a party if it accepts in advance, for the purposes of the dispute, the obligations of pacific settlement provided in the present Charter.

3. The proceedings of the General Assembly in respect of matters brought to its attention under this Article will be subject to the provisions of Articles 11 and 12.

Article 36

1. The Security Council may, at any stage of a dispute of the nature referred to in Article 33 or of a situation of like nature, recommend appropriate procedures or methods of adjustment.

2. The Security Council should take into consideration any procedures for the settlement of the dispute which have already been adopted by the parties.

3. In making recommendations under this Article the Security Council should also take into consideration that legal disputes should as a general rule be referred by the parties to the International Court of Justice in accordance with the provisions of the Statute of the Court.

Article 37

1. Should the parties to a dispute of the nature referred to in Article 33 fail to settle it by the means indicated in that Article, they shall refer it to the Security Council.

2. If the Security Council deems that the continuance of the dispute is in fact likely to endanger the maintenance of international peace and security, it shall decide whether to take action under Article 36 or to recommend such terms of settlement as it may consider appropriate.

Article 38

Without prejudice to the provisions of Articles 33 to 37, the Security Council may, if all the parties to any dispute so request, make recommendations to the parties with a view to a pacific settlement of the dispute.

CHAPTER VII

Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression

Article 39

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

Article 40

In order to prevent an aggravation of the situation, the Security Council may, before making the recommendations or deciding upon the measures provided for in Article 39, call upon the parties concerned to comply with such provisional measures as it deems necessary or desirable. Such provisional measures shall be without prejudice to the rights, claims, or position of the parties concerned. The Security Council shall duly take account of failure to comply with such provisional measures.

Article 41

The Security Council may decide what measures not involving the use of armed force are to be employed to give effect

to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.

Article 42

Should the Security Council consider that measures provided for in Article 41 would be inadequate or have proved to be inadequate, it may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations.

Article 43

1. All Members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

2. Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.

3. The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and Members or between the Security Council and groups of Members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes.

Article 44

When the Security Council has decided to use force it shall, before calling upon a Member not represented on it to provide armed forces in fulfillment of the obligations assumed under Article 43, invite that Member, if the Member so desires, to participate in the decisions of the Security Council concerning the employment of contingents of that Member's armed forces.

Article 45

In order to enable the United Nations to take urgent military measures, Members shall hold immediately available national air-force contingents for combined international enforcement action. The strength and degree of readiness of these contingents and plans for their combined action shall be determined, within the limits laid down in the special agreement or agreements referred to in Article 43, by the Security Council with the assistance of the Military Staff Committee.

Article 46

Plans for the application of armed force shall be made by the Security Council with the assistance of the Military Staff Committee.

Article 47

1. There shall be established a Military Staff Committee to advise and assist the Security Council on all questions relating to the Security Council's military requirements for the maintenance of international peace and security, the employment and command of forces placed at its disposal, the regulation of armaments, and possible disarmament.

2. The Military Staff Committee shall consist of the Chiefs of Staff of the permanent members of the Security Council or their representatives. Any Member of the United Nations not permanently represented on the Committee shall be invited by the Committee to be associated with it when the efficient discharge of the Committee's responsibilities requires the participation of that Member in its work.

3. The Military Staff Committee shall be responsible under the Security Council for the strategic direction of any armed forces placed at the disposal of the Security Council. Questions relating to the command of such forces shall be worked out subsequently.

4. The Military Staff Committee, with the authorization of the Security Council and after consultation with appropriate regional agencies, may establish regional subcommittees.

Article 48

1. The action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the Members of the United Nations or by some of them as the Security Council may determine.

2. Such decisions shall be carried out by the Members of the United Nations directly and through their action in the appropriate international agencies of which they are members.

Article 49

The Members of the United Nations shall join in affording mutual assistance in carrying out the measures decided upon by the Security Council.

Article 50

If preventive or enforcement measures against any state are taken by the Security Council, any other state, whether

lember of the United Nations or not, hich finds itself confronted with special conomic problems arising from the carry- ng out of those measures shall have the ght to consult the Security Council with gard to a solution of those problems.

Article 51

Nothing in the present Charter shall im- air the inherent right of individual or llective self-defense if an armed attack ccurs against a Member of the United ations, until the Security Council has ken measures necessary to maintain ternational peace and security. Measures ken by Members in the exercise of this ght of self-defense shall be immediately ported to the Security Council and shall ot in any way affect the authority and sponsibility of the Security Council un- er the present Charter to take at any me such action as it deems necessary in der to maintain or restore international eace and security.

CHAPTER VIII

Regional Arrangements

Article 52

1. Nothing in the present Charter pre- udes the existence of regional arrange- ents or agencies for dealing with such atters relating to the maintenance of ternational peace and security as are propriate for regional action, provided at such arrangements or agencies and eir activities are consistent with the urposes and Principles of the United Na- ons.

2. The Members of the United Nations tering into such arrangements or con- tituting such agencies shall make every fort to achieve pacific settlement of local sputes through such regional arrange- ents or by such regional agencies before ferring them to the Security Council.

3. The Security Council shall encourage e development of pacific settlement of cal disputes through such regional ar- ngements or by such regional agencies ther on the initiative of the states con- rned or by reference from the Security uncil.

4. This Article in no way impairs the plication of Articles 34 and 35.

Article 53

1. The Security Council shall, where ap- propriate, utilize such regional arrange- nts or agencies for enforcement action der its authority. But no enforcement tion shall be taken under regional ar- ngements or by regional agencies with- t the authorization of the Security uncil, with the exception of measures ainst any enemy state, as defined in paragraph 2 of this Article, provided for pursuant to Article 107 or in regional arrangements directed against renewal of aggressive policy on the part of any such state, until such time as the Organization may, on request of the Governments concerned, be charged with the responsibility for preventing further aggression by such a state.

2. The term enemy state as used in paragraph 1 of this Article applies to any state which during the Second World War has been an enemy of any signatory of the present Charter.

Article 54

The Security Council shall at all times be kept fully informed of activities undertaken or in contemplation under regional arrangements or by regional agencies for the maintenance of international peace and security.

CHAPTER IX

International Economic and Social Cooperation

Article 55

With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:

(a) higher standards of living, full employment, and conditions of economic and social progress and development;

(b) solutions of international economic, social, health, and related problems; and international cultural and educational cooperation; and

(c) universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

Article 56

All Members pledge themselves to take joint and separate action in cooperation with the Organization for the achievement of the purposes set forth in Article 55.

Article 57

1. The various specialized agencies, established by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

2. Such agencies thus brought into relationship with the United Nations are

hereinafter referred to as specialized agencies.

Article 58

The Organization shall make recommendations for the coordination of the policies and activities of the specialized agencies.

Article 59

The Organization shall, where appropriate, initiate negotiations among the states concerned for the creation of any new specialized agencies required for the accomplishment of the purposes set forth in Article 55.

Article 60

Responsibility for the discharge of the functions of the Organization set forth in this Chapter shall be vested in the General Assembly and, under the authority of the General Assembly, in the Economic and Social Council, which shall have for this purpose the powers set forth in Chapter X.

CHAPTER X

Economic and Social Council

Composition

Article 61

1. The Economic and Social Council shall consist of eighteen Members of the United Nations elected by the General Assembly.

2. Subject to the provisions of paragraph 3, six members of the Economic and Social Council shall be elected each year for a term of three years. A retiring member shall be eligible for immediate reelection.

3. At the first election, eighteen members of the Economic and Social Council shall be chosen. The term of office of six members so chosen shall expire at the end of one year, and of six other members at the end of two years, in accordance with arrangements made by the General Assembly.

4. Each member of the Economic and Social Council shall have one representative.

Functions and Powers

Article 62

1. The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educational, health, and related matters and may make recommendations with respect to any such matters to the General Assembly, to the Members of the United Nations, and to the specialized agencies concerned.

2. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

3. It may prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.

4. It may call, in accordance with the rules prescribed by the United Nations, international conferences on matters falling within its competence.

Article 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may coordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the Members of the United Nations.

Article 64

1. The Economic and Social Council may take appropriate steps to obtain regular reports from the specialized agencies. It may make arrangements with the Members of the United Nations and with the specialized agencies to obtain reports on the steps taken to give effect to its own recommendations and to recommendations on matters falling within its competence made by the General Assembly.

2. It may communicate its observations on these reports to the General Assembly.

Article 65

The Economic and Social Council may furnish information to the Security Council and shall assist the Security Council upon its request.

Article 66

1. The Economic and Social Council shall perform such functions as fall within its competence in connection with the carrying out of the recommendations of the General Assembly.

2. It may, with the approval of the General Assembly, perform services at the request of Members of the United Nations and at the request of specialized agencies.

3. It shall perform such other functions as are specified elsewhere in the present Charter or as may be assigned to it by the General Assembly.

Voting

Article 67

1. Each member of the Economic and Social Council shall have one vote.

2. Decisions of the Economic and Social Council shall be made by a majority of the members present and voting.

Procedure

Article 68

The Economic and Social Council shall set up commissions in economic and social fields and for the promotion of human rights, and such other commissions as may be required for the performance of its functions.

Article 69

The Economic and Social Council shall invite any Member of the United Nations to participate, without vote, in its deliberations on any matter of particular concern to that Member.

Article 70

The Economic and Social Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

Article 71

The Economic and Social Council may make suitable arrangements for consultation with non-governmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations and, where appropriate, with national organizations after consultation with the Member of the United Nations concerned.

Article 72

1. The Economic and Social Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Economic and Social Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

CHAPTER XI

Declaration Regarding Non-Self-Governing Territories

Article 73

Members of the United Nations which have or assume responsibilities for the administration of territories whose peoples have not yet attained a full measure of self-government recognize the principle that the interests of the inhabitants of these territories are paramount, and accept as a sacred trust the obligation to promote to the utmost, within the system of international peace and security established by the present Charter, the well-being of the inhabitants of these territories, and, to this end:

(a) to ensure, with due respect for the culture of the peoples concerned, their political, economic, social, and educational advancement, their just treatment, and their protection against abuses;

(b) to develop self-government, to take due account of the political aspirations of the peoples, and to assist them in the progressive development of their free political institutions, according to the particular circumstances of each territory and its peoples and their varying stages of advancement;

(c) to further international peace and security;

(d) to promote constructive measures of development, to encourage research, and to cooperate with one another and, when and where appropriate, with specialized international bodies with a view to the practical achievement of the social, economic and scientific purposes set forth in this Article; and

(e) to transmit regularly to the Secretary-General for information purposes, subject to such limitation as security and constitutional considerations may require, statistical and other information of a technical nature relating to economic, social, and educational conditions in the territories for which they are respectively responsible other than those territories to which Chapters XII and XIII apply.

Article 74

Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect of their metropolitan areas, must be based on the general principle of good-neighborliness, due account being taken of the interests and well-being of the rest of the world, in social, economic, and commercial matters.

CHAPTER XII

International Trusteeship System

Article 75

The United Nations shall establish under its authority an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements. These territories are hereinafter referred to as trust territories.

Article 76

The basic objectives of the trusteeship system, in accordance with the Purposes

of the United Nations laid down in Article 1 of the present Charter, shall be:

(a) to further international peace and security;

(b) to promote the political, economic, social, and educational advancement of the inhabitants of the trust territories, and their progressive development towards self-government or independence as may be appropriate to the particular circumstances of each territory and its peoples and the freely expressed wishes of the peoples concerned, and as may be provided by the terms of each trusteeship agreement;

(c) to encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion, and to encourage recognition of the interdependence of the peoples of the world; and

(d) to ensure equal treatment in social, economic, and commercial matters for all Members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice, without prejudice to the attainment of the foregoing objectives and subject to the provisions of Article 80.

Article 77

1. The trusteeship system shall apply to such territories in the following categories as may be placed thereunder by means of trusteeship agreements:

(a) territories now held under mandate;

(b) territories which may be detached from enemy states as a result of the Second World War; and

(c) territories voluntarily placed under the system by states responsible for their administration.

2. It will be a matter for subsequent agreement as to which territories in the foregoing categories will be brought under the trusteeship system and upon what terms.

Article 78

The trusteeship system shall not apply to territories which have become Members of the United Nations, relationship among which shall be based on respect for the principle of sovereign equality.

Article 79

The terms of trusteeship for each territory to be placed under the trusteeship system, including any alteration or amendment, shall be agreed upon by the states directly concerned, including the mandatory power in the case of territories held under mandate by a Member of the United Nations, and shall be approved as provided for in Articles 83 and 85.

Article 80

1. Except as may be agreed upon in individual trusteeship agreements, made under Articles 77, 79, and 81, placing each territory under the trusteeship system, and until such agreements have been concluded, nothing in this Chapter shall be construed in or of itself to alter in any manner the rights whatsoever of any states or any peoples or the terms of existing international instruments to which Members of the United Nations may respectively be parties.

2. Paragraph 1 of this Article shall not be interpreted as giving grounds for delay or postponement of the negotiation and conclusion of agreements for placing mandated and other territories under the trusteeship system as provided for in Article 77.

Article 81

The trusteeship agreement shall in each case include the terms under which the trust territory will be administered and designate the authority which will exercise the administration of the trust territory. Such authority, hereinafter called the administering authority, may be one or more states or the Organization itself.

Article 82

There may be designated, in any trusteeship agreement, a strategic area or areas which may include part or all of the trust territory to which the agreement applies, without prejudice to any special agreement or agreements made under Article 43.

Article 83

1. All functions of the United Nations relating to strategic areas, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the Security Council.

2. The basic objectives set forth in Article 76 shall be applicable to the people of each strategic area.

3. The Security Council shall, subject to the provisions of the trusteeship agreements and without prejudice to security considerations, avail itself of the assistance of the Trusteeship Council to perform those functions of the United Nations under the trusteeship system relating to political, economic, social, and educational matters in the strategic areas.

Article 84

It shall be the duty of the administering authority to ensure that the trust territory shall play its part in the maintenance of international peace and security. To this end the administering authority may make use of volunteer forces, facili-

ties, and assistance from the trust territory in carrying out the obligations towards the Security Council undertaken in this regard by the administering authority, as well as for local defense and the maintenance of law and order within the trust territory.

Article 85

1. The functions of the United Nations with regard to trusteeship agreements for all areas not designated as strategic, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the General Assembly.

2. The Trusteeship Council, operating under the authority of the General Assembly, shall assist the General Assembly in carrying out these functions.

CHAPTER XIII

The Trusteeship Council

Composition

Article 86

1. The Trusteeship Council shall consist of the following Members of the United Nations:

(a) those Members administering trust territories;

(b) such of those Members mentioned by name in Article 23 as are not administering trust territories; and

(c) as many other Members elected for three-year terms by the General Assembly as may be necessary to ensure that the total number of members of the Trusteeship Council is equally divided between those Members of the United Nations which administer trust territories and those which do not.

2. Each member of the Trusteeship Council shall designate one specially qualified person to represent it therein.

Functions and Powers

Article 87

The General Assembly and, under its authority, the Trusteeship Council, in carrying out their functions, may:

(a) consider reports submitted by the administering authority;

(b) accept petitions and examine them in consultation with the administering authority;

(c) provide for periodic visits to the respective trust territories at times agreed upon with the administering authority; and

(d) take these and other actions in conformity with the terms of the trusteeship agreements.

Article 88

The Trusteeship Council shall formulate a questionnaire on the political, economic, social, and educational advancement of the inhabitants of each trust territory, and the administering authority for each trust territory within the competence of the General Assembly shall make an annual report to the General Assembly upon the basis of such questionnaire.

Voting

Article 89

1. Each member of the Trusteeship Council shall have one vote.

2. Decisions of the Trusteeship Council shall be made by a majority of the members present and voting.

Procedure

Article 90

1. The Trusteeship Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Trusteeship Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

Article 91

The Trusteeship Council shall, when appropriate, avail itself of the assistance of the Economic and Social Council and of the specialized agencies in regard to matters with which they are respectively concerned.

CHAPTER XIV

The International Court of Justice

Article 92

The International Court of Justice shall be the principal judicial organ of the United Nations. It shall function in accordance with the annexed Statute, which is based upon the Statute of the Permanent Court of International Justice and forms an integral part of the present Charter.

Article 93

1. All Members of the United Nations are *ipso facto* parties to the Statute of the International Court of Justice.

2. A state which is not a Member of the United Nations may become a party to the Statute of the International Court of Justice on condition to be determined in each case by the General Assembly upon the recommendation of the Security Council.

Article 94

1. Each Member of the United Nations undertakes to comply with the decision of

the International Court of Justice in any case to which it is a party.

2. If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.

Article 95

Nothing in the present Charter shall prevent Members of the United Nations from entrusting the solution of their differences to other tribunals by virtue of agreements already in existence or which may be concluded in the future.

Article 96

1. The General Assembly or the Security Council may request the International Court of Justice to give an advisory opinion on any legal question.

2. Other organs of the United Nations and specialized agencies, which may at any time be so authorized by the General Assembly, may also request advisory opinions of the Court on legal questions arising within the scope of their activities.

CHAPTER XV

The Secretariat

Article 97

The Secretariat shall comprise a Secretary-General and such staff as the Organization may require. The Secretary-General shall be appointed by the General Assembly upon the recommendation of the Security Council. He shall be the chief administrative officer of the Organization.

Article 98

The Secretary-General shall act in that capacity in all meetings of the General Assembly, of the Security Council, of the Economic and Social Council, and of the Trusteeship Council, and shall perform such other functions as are entrusted to him by these organs. The Secretary-General shall make an annual report to the General Assembly on the work of the Organization.

Article 99

The Secretary-General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security.

Article 100

1. In the performance of their duties the Secretary-General and the staff shall not seek or receive instructions from any government or from any other authority external to the Organization. They shall refrain from any action which might reflect on their position as international officials responsible only to the Organization.

2. Each Member of the United Nations undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to influence them in the discharge of their responsibilities.

Article 101

1. The staff shall be appointed by the Secretary-General under regulations established by the General Assembly.

2. Appropriate staffs shall be permanently assigned to the Economic and Social Council, the Trusteeship Council, and, as required, to other organs of the United Nations. These staffs shall form a part of the Secretariat.

3. The paramount consideration in the employment of the staff and in the determination of the conditions of service shall be the necessity of securing the highest standards of efficiency, competence, and integrity. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

CHAPTER XVI

Miscellaneous Provisions

Article 102

1. Every treaty and every international agreement entered into by any Member of the United Nations after the present Charter comes into force shall as soon as possible be registered with the Secretariat and published by it.

2. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.

Article 103

In the event of a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

Article 104

The Organization shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes.

Article 105

1. The Organization shall enjoy in the territory of each of its Members such privileges and immunities as are necessary for the fulfillment of its purposes.

2. Representatives of the Members of the United Nations and officials of the Organization shall similarly enjoy such privileges and immunities as are necessary for the independent exercise of their functions in connection with the Organization.

3. The General Assembly may make recommendations with a view to determining the details of the application of paragraphs 1 and 2 of this Article or may propose conventions to the Members of the United Nations for this purpose.

CHAPTER XVII

Transitional Security Arrangements

Article 106

Pending the coming into force of such special agreements referred to in Article 43 as in the opinion of the Security Council enable it to begin the exercise of its responsibilities under Article 42, the parties to the Four-Nation Declaration, signed at Moscow, October 30, 1943, and France, shall, in accordance with the provisions of paragraph 5 of that Declaration, consult with one another and, as occasion requires with other Members of the United Nations with a view to such joint action on behalf of the Organization as may be necessary for the purpose of maintaining international peace and security.

Article 107

Nothing in the present Charter shall invalidate or preclude action, in relation to any state which during the Second World War has been an enemy of any signatory to the present Charter, taken or authorized as a result of that war by the Governments having responsibility for such action.

CHAPTER XVIII

Amendments

Article 108

Amendments to the present Charter shall come into force for all Members of the United Nations when they have been adopted by a vote of two-thirds of the members of the General Assembly and ratified in accordance with their respective constitutional processes by two-thirds of the Members of the United Nations, including all the permanent members of the Security Council.

Article 109

1. A General Conference of the Members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any seven members of the Security Council. Each Member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two-thirds of the Members of the United Nations including all the permanent members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the conference shall be held if so decided by a majority vote of the members of the General Assembly and by a vote of any seven members of the Security Council.

CHAPTER XIX

Ratification and Signature

Article 110

1. The present Charter shall be ratified by the signatory states in accordance with their respective constitutional processes.

2. The ratifications shall be deposited with the Government of the United States of America, which shall notify all the signatory states of each deposit as well as the Secretary-General of the Organization when he has been appointed.

3. The present Charter shall come into force upon the deposit of ratifications by the Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, and by a majority of the other signatory states. A protocol of the ratifications deposited shall thereupon be drawn up by the Government of the United States of America which shall communicate copies thereof to all the signatory states.

4. The states signatory to the present Charter which ratify it after it has come into force will become original Members of the United Nations on the date of the deposit of their respective ratifications.

Article 111

The present Charter, of which the Chinese, French, Russian, English, and Spanish texts are equally authentic, shall remain deposited in the archives of the Government of the United States of America. Duly certified copies thereof shall be transmitted by that Government to the Governments of the other signatory states.

IN FAITH WHEREOF the representatives of the Governments of the United Nations have signed the present Charter.

DONE at the city of San Francisco the twenty-sixth day of June, one thousand nine hundred and forty-five.

SPORTS ORGANIZATIONS AND INFORMATION BUREAUS

AMATEUR ATHLETIC UNION OF THE U. S. 233 Broadway, New York 7, N. Y.

AMATEUR BICYCLE LEAGUE OF AMERICA. 2320 Grand Ave., New York 68, N. Y.

AMATEUR FENCERS LEAGUE OF AMERICA. Room 3406, 122 E. 42d St., New York 17, N. Y.

AMATEUR HOCKEY ASSN. OF THE U. S. Madison Square Garden, 307 W. 49th St., New York 19, N. Y.

AMATEUR SKATING UNION OF THE U. S. 5750 Oleatha Ave., St. Louis 9, Mo.

AMATEUR SOFTBALL ASSN. OF AMERICA. Suite 401, 11 Hill St., Newark 2, N. J.

AMATEUR TRAPSHOOTING ASSN. OF AMERICA. Vandalia, Ohio

AMERICAN AUTOMOBILE ASSN. Pennsylvania Ave. at 17th St., N.W., Washington 6, D. C.

AMERICAN BADMINTON ASSN. 47 Colburn Rd., Wellesley Hills 82, Mass.

AMERICAN BASEBALL CONGRESS. Box 44, Battle Creek, Mich.

AMERICAN BOWLING CONGRESS. 1572 E. Capitol Drive, Milwaukee 11, Wis.

AMERICAN CANOE ASSN. 500 11th St., Brooklyn 15, N. Y.

AMERICAN HOCKEY LEAGUE. Box 190, Hempstead, N. Y.

AMERICAN HORSE SHOWS ASSN. 90 Broad St., New York 4.

AMERICAN KENNEL CLUB. 221 Fourth Ave., New York 3.

AMERICAN LAWN BOWLING ASSN. 10276 Orton Ave., Los Angeles 64, Calif.

AMERICAN LEAGUE SERVICE BUREAU (Baseball). 310 S. Michigan Ave., Chicago 4, Ill.

AMERICAN MOTORCYCLE ASSOCIATION. 106 Buttles Ave., Columbus 8, Ohio

AMERICAN POWER BOAT ASSN. 700 Canton Ave., Detroit 7, Mich.

AMERICAN RACING DRIVERS CLUB (midget auto racing). 309 West 50th St., New York 19, N. Y.

AMERICAN ROQUE LEAGUE, 5439 Vanderbilt Ave., Dallas 6, Texas.

AMERICAN WATER SKI ASSN. 1661 Monroe Ave., N.W., Grand Rapids, Mich.

BASEBALL COMMISSIONER FORD C. FRICK. 30 Rockefeller Plaza, New York 20, N. Y.

BILLIARD CONGRESS OF AMERICA. 921 Edison Bldg., Toledo, Ohio

EASTERN COLLEGE ATHLETIC CONFERENCE. Biltmore Hotel, New York 17, N. Y.

ELIAS BASEBALL BUREAU, 11 West 42d St., New York 36

FISH AND WILDLIFE SERVICE. Dept. of the Interior, Washington 25, D. C.

INTERNATL. AMATEUR ATHLETIC FEDERATION. Halton House, 23 Holborn, London, E. C. 1, England.

INTERNATIONAL GAME FISH ASSN. American Museum of Natural History, New York 24, N. Y.

LITTLE LEAGUE BASEBALL. Williamsport, Pa.

NATL. ARCHERY ASSN. OF THE U. S. 20212 Bayview Ave., Santa Anna, Calif.

NATL. ASSN. OF AMATEUR OARSMEN. 119 Heller Parkway, Newark 4, N. J.

NATL. ASSN. OF ANGLING AND CASTING CLUBS. 960 Paul Brown Bldg., St. Louis 1, Mo.

NATL. ASSN. OF PROFESSIONAL BASEBALL LEAGUES (Minors). 720 E. Broad St., Columbus 15, Ohio

NATL. ASSN. OF STATE RACING COMMISSIONERS. Box 156, Lexington, Ky.

NATL. BASEBALL CONGRESS. Wichita 1, Kans.

NATL. BASKETBALL ASSN. Empire State Bldg., N. Y. 1.

NATL. BOXING ASSN. Room 2053, New Municipal Center, Washington 1, D. C.

NATL. COLLEGIATE ATHLETIC ASSN. Fairfax Bldg., 11th and Baltimore, Kansas City 6, Mo.

NATL. DUCK PIN BOWLING CONGRESS. 1420 New York Ave., N.W., Washington 5, D. C.

NATL. FOOTBALL LEAGUE. 1518 Walnut St., Philadelphia 2.

NATL. HOCKEY LEAGUE. Sun Life Bldg., Montreal, Quebec.

NATL. HORSESHOE PITCHERS ASSN. 111 Via Buena Ventura, Redondo Beach, Calif.

NATL. LEAGUE SERVICE BUREAU (Baseball). Carew Tower, Cincinnati 2, Ohio

NATL. RIFLE ASSN. OF AMERICA. 1600 Rhode Island Ave., Washington 6, D. C.

NATL. SKEET SHOOTING ASSN. 3409 Oak Lawn Ave., Dallas 19, Texas.

NATL. SKI ASSN. 100 West 13th Ave., Denver 4, Colo.

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NEW YORK RACING ASSNS. SERVICE BUREAU. 250 Park Ave., New York 17, N. Y.

NEW YORK STATE ATHLETIC (BOXING) COMMISSION. 226 W. 47th St., New York 36, N. Y.

NORTH AMERICAN YACHT RACING UNION. 37 West 44th St., New York 18, N. Y.

PROFESSIONAL GOLFERS' ASSN. OF AMERICA. 134 N. La Salle St., Chicago 2, Ill.

PROFESSIONAL LAWN TENNIS ASSN. OF THE U. S. 146 E. 54th St., New York 22, N. Y.

ROLLER SKATING RINK OPERATORS ASSN. OF AMERICA. Box 857, Detroit 31, Mich.

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THOROUGHBRED RACING ASSNS. OF THE U. S. 925 Chrysler Bldg., New York 17, N. Y.

U. S. AMATEUR ROLLER SKATING ASSN. 120 West 42d St., New York 18, N. Y.

U. S. CHESS FEDERATION. 208 S. La Salle St., Chicago 4, Ill.

U. S. FIELD HOCKEY ASSN. 24 Park Place, Rockville Centre, N. Y.

U. S. FIGURE SKATING ASSN. Rm. 505, 30 Huntington Ave., Boston, Mass.

U. S. GOLF ASSN. 40 E. 38th St., New York 16, N. Y.

U. S. HANDBALL ASSN. 505 No. Michigan Ave., Chicago 11.

U. S. INTERCOLLEGIATE LACROSSE ASSN. 52 Wall St., New York 5, N. Y.

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U. S. OLYMPIC ASSN. Biltmore Hotel, New York 17, N. Y.

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U. S. SQUASH RACQUETS ASSN. Rm. 1105, 120 Broadway, New York 5, N. Y.

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SPORTS

Edited by PETER BRANDWEIN

For 1955 sports champions and records, see special section beginning on Page 846.

BASEBALL

THE POPULAR TRADITION that baseball was invented by Abner Doubleday at Cooperstown, N. Y., in 1839, has been enshrined in the Hall of Fame and National Museum of Baseball erected in that town, but research has proved that a game called "Base Ball" was played in this country and England before 1839. However, the first team baseball as we know it was played at the Elysian Fields, Hoboken, N. J., on June 19, 1846, between the Knickerbockers and the New York Nine. There was a gradual growth of baseball and an improvement of equipment and playing skill in the next fifty years. Soldiers returning home from the Civil War spread over the country the game they had learned to play in camp.

Historians have it that the first pitcher to throw a curve was William A. (Candy) Cummings in 1867. The Cincinnati Red Stockings were the first all-professional team and in 1869 they played 64 games without a loss. The standard ball of the same size and weight, still the rule, was adopted in 1872. The first catcher's mask was worn in 1875. The National League was organized in 1876. The first chest protector was donned in 1885. The three-strike rule was put on the books in 1887 and the four-ball ticket to first base came in 1889. The pitching distance, formerly shorter, was lengthened to 60 feet 6 inches in 1893 and the rules have been only slightly modified since that time.

The American League, under the vigorous leadership of B. B. Johnson, blossomed forth as a major league in 1901. Judge Kenesaw Mountain Landis, by action of the two major leagues, became Commissioner of Baseball in 1921 and, upon his death (1944), Albert B. Chandler, former United States Senator from Kentucky, was elected to that office (1945). Chandler failed to obtain a new contract, and he was succeeded by Ford C. Frick (1951), the National League president.

PROFESSIONAL BASEBALL GOVERNMENT

NATIONAL LEAGUE—AMERICAN LEAGUE—NATIONAL ASSOCIATION

Ford C. Frick, Commissioner
Charles M. Segar, Secretary-Treasurer
30 Rockefeller Plaza, New York 20, N. Y.

NATIONAL LEAGUE

Warren C. Giles
President-Secretary-Treasurer
Office: Carew Tower, Cincinnati 2, Ohio
Chairman of the Board, John A. Heydler
Service Bureau: Dave Grote, Manager

AMERICAN LEAGUE

William Harridge
President-Secretary-Treasurer
Office: 310 South Michigan Ave., Chicago 4, Ill.
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NATIONAL ASSOCIATION

George M. Trautman
President-Treasurer
720 East Broad St., Columbus 15, Ohio
Vice President—Herman D. White
Publicity Director: Robert L. Finch

Baseball Statistics

Source: The Elias Baseball Bureau, New York City.

Record of World Series Games

(No series in 1904.)

Figures in parentheses indicate number of victories for each club. Pitchers named are winner and loser, respectively.

1903—BOSTON A. L. (5) vs. PITTSBURGH N. L. (3)

(Not under Brush rules)

Managers—J. J. Collins, Boston; F. C. Clarke, Pittsburgh.

Oct. 1	Pittsburgh (Phillippe)	7	Boston (Young)	3	At Boston
Oct. 2	Boston (Dinneen)	3	Pittsburgh (Leever)	0	At Boston
Oct. 3	Pittsburgh (Phillippe)	4	Boston (Hughes)	2	At Boston
Oct. 6	Pittsburgh (Phillippe)	5	Boston (Dinneen)	4	At Pittsburgh
Oct. 7	Boston (Young)	11	Pittsburgh (Kennedy)	2	At Pittsburgh
Oct. 8	Boston (Dinneen)	6	Pittsburgh (Leever)	3	At Pittsburgh
Oct. 10	Boston (Young)	7	Pittsburgh (Phillippe)	3	At Pittsburgh
Oct. 13	Boston (Dinneen)	3	Pittsburgh (Phillippe)	0	At Boston

1905—NEW YORK N. L. (4) vs. PHILADELPHIA A. L. (1)

Managers—John J. McGraw, New York; Connie Mack, Philadelphia.

Oct. 9	New York (Mathewson)	3	Philadelphia (Plank)	0	At Philadelphia
Oct. 10	Philadelphia (Bender)	3	New York (McGinnity)	0	At New York
Oct. 12	New York (Mathewson)	9	Philadelphia (Coakley)	0	At Philadelphia
Oct. 13	New York (McGinnity)	1	Philadelphia (Plank)	0	At New York
Oct. 14	New York (Mathewson)	2	Philadelphia (Bender)	0	At New York

1906—CHICAGO A. L. (4) vs. CHICAGO N. L. (2)

Managers—Fielder Jones, Chicago A. L.; Frank L. Chance, Chicago N. L.

Oct. 9	Chicago A (Altrock)	2	Chicago N (Brown)	1	At Chicago Nat. Pk.
Oct. 10	Chicago N (Reulbach)	7	Chicago A (White)	1	At Chicago Am. Pk.
Oct. 11	Chicago A (Walsh)	3	Chicago N (Pfiester)	0	At Chicago Nat. Pk.
Oct. 12	Chicago N (Brown)	1	Chicago A (Altrock)	0	At Chicago Am. Pk.
Oct. 13	Chicago A (Walsh)	8	Chicago N (Pfiester)	6	At Chicago Nat. Pk.
Oct. 14	Chicago A (White)	8	Chicago N (Brown)	3	At Chicago Am. Pk.

1907—CHICAGO N. L. (4) vs. DETROIT A. L. (0)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 8	Chicago (tie)	3	Detroit (tie)	3	At Chicago (12 inn.)
Oct. 9	Chicago (Pfiester)	3	Detroit (Mullin)	1	At Chicago
Oct. 10	Chicago (Reulbach)	5	Detroit (Siever)	1	At Chicago
Oct. 11	Chicago (Overall)	6	Detroit (Donovan)	1	At Detroit
Oct. 12	Chicago (Brown)	2	Detroit (Mullin)	0	At Detroit

1908—CHICAGO N. L. (4) vs. DETROIT A. L. (1)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 10	Chicago (Brown)	10	Detroit (Summers)	6	At Detroit
Oct. 11	Chicago (Overall)	6	Detroit (Donovan)	1	At Chicago
Oct. 12	Detroit (Mullin)	8	Chicago (Pfiester)	3	At Chicago
Oct. 13	Chicago (Brown)	3	Detroit (Summers)	0	At Detroit
Oct. 14	Chicago (Overall)	2	Detroit (Donovan)	0	At Detroit

1909—PITTSBURGH N. L. (4) vs. DETROIT A. L. (3)

Managers—Fred C. Clarke, Pittsburgh; Hugh Jennings, Detroit.

Oct. 8	Pittsburgh (Adams)	4	Detroit (Mullin)	1	At Pittsburgh
Oct. 9	Detroit (Donovan)	7	Pittsburgh (Camnitz)	2	At Pittsburgh
Oct. 11	Pittsburgh (Maddox)	8	Detroit (Summers)	6	At Detroit
Oct. 12	Detroit (Mullin)	5	Pittsburgh (Leifield)	0	At Detroit
Oct. 13	Pittsburgh (Adams)	8	Detroit (Summers)	4	At Pittsburgh
Oct. 14	Detroit (Mullin)	5	Pittsburgh (Willis)	4	At Detroit
Oct. 16	Pittsburgh (Adams)	8	Detroit (Donovan)	0	At Detroit

1910—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Frank L. Chance, Chicago.

Oct. 17—Philadelphia (Bender)	4	Chicago (Overall)	1	At Philadelphia
Oct. 18—Philadelphia (Coombs)	9	Chicago (Brown)	3	At Philadelphia
Oct. 20—Philadelphia (Coombs)	12	Chicago (McIntire)	5	At Chicago
Oct. 22—Chicago (Brown)	4	Philadelphia (Bender)	3	At Chicago (10 inn.)
Oct. 23—Philadelphia (Coombs)	7	Chicago (Brown)	2	At Chicago

1911—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (2)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 14—New York (Mathewson)	2	Philadelphia (Bender)	1	At New York
Oct. 16—Philadelphia (Plank)	3	New York (Marquard)	1	At Philadelphia
Oct. 17—Philadelphia (Coombs)	3	New York (Mathewson)	2	At New York (11 inn.)
Oct. 24—Philadelphia (Bender)	4	New York (Mathewson)	2	At Philadelphia
Oct. 25—New York (Crandall)	4	Philadelphia (Plank)	3	At New York (10 inn.)
Oct. 26—Philadelphia (Bender)	13	New York (Ames)	2	At Philadelphia

1912—BOSTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—J. Garland Stahl, Boston; John J. McGraw, New York.

Oct. 8—Boston (Wood)	4	New York (Tesreau)	3	At New York
Oct. 9—Boston (tie)	6	New York (tie)	6	At Boston (11 inn.)
Oct. 10—New York (Marquard)	2	Boston (O'Brien)	1	At Boston
Oct. 11—Boston (Wood)	3	New York (Tesreau)	1	At New York
Oct. 12—Boston (Bedient)	2	New York (Mathewson)	1	At Boston
Oct. 14—New York (Marquard)	5	Boston (O'Brien)	2	At New York
Oct. 15—New York (Tesreau)	11	Boston (Wood)	4	At Boston
Oct. 16—Boston (Wood)	3	New York (Mathewson)	2	At Boston (10 inn.)

1913—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (1)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 7—Philadelphia (Bender)	6	New York (Marquard)	4	At New York
Oct. 8—New York (Mathewson)	3	Philadelphia (Plank)	0	At Philadelphia (10 inn.)
Oct. 9—Philadelphia (Bush)	8	New York (Tesreau)	2	At New York
Oct. 10—Philadelphia (Bender)	6	New York (Demaree)	5	At Philadelphia
Oct. 11—Philadelphia (Plank)	3	New York (Mathewson)	1	At New York

1914—BOSTON N. L. (4) vs. PHILADELPHIA A. L. (0)

Managers—George T. Stallings, Boston; Connie Mack, Philadelphia.

Oct. 9—Boston (Rudolph)	7	Philadelphia (Bender)	1	At Philadelphia
Oct. 10—Boston (James)	1	Philadelphia (Plank)	0	At Philadelphia
Oct. 12—Boston (James)	5	Philadelphia (Bush)	4	At Boston (12 inn.)
Oct. 13—Boston (Rudolph)	3	Philadelphia (Shawkey)	1	At Boston

1915—BOSTON A. L. (4) vs. PHILADELPHIA N. L. (1)

Managers—William Carrigan, Boston; Patrick J. Moran, Philadelphia.

Oct. 8—Philadelphia (Alexander)	3	Boston (Shore)	1	At Philadelphia
Oct. 9—Boston (Foster)	2	Philadelphia (Mayer)	1	At Philadelphia
Oct. 11—Boston (Leonard)	2	Philadelphia (Alexander)	1	At Boston
Oct. 12—Boston (Shore)	2	Philadelphia (Chalmers)	1	At Boston
Oct. 13—Boston (Foster)	5	Philadelphia (Rixey)	4	At Philadelphia

1916—BOSTON A. L. (4) vs. BROOKLYN N. L. (1)

Managers—William Carrigan, Boston; Wilbert J. Robinson, Brooklyn.

Oct. 7—Boston (Shore)	6	Brooklyn (Marquard)	5	At Boston
Oct. 9—Boston (Ruth)	2	Brooklyn (Smith)	1	At Boston (14 inn.)
Oct. 10—Brooklyn (Coombs)	4	Boston (Mays)	3	At Brooklyn
Oct. 11—Boston (Leonard)	6	Brooklyn (Marquard)	2	At Brooklyn
Oct. 12—Boston (Shore)	4	Brooklyn (Pfeffer)	1	At Boston

1917—CHICAGO A. L. (4) NEW YORK N. L. (2)

Managers—Clarence H. Rowland, Chicago; John J. McGraw, New York.

Oct. 6—Chicago (Cicotte)	2	New York (Sallee)	1	At Chicago
Oct. 7—Chicago (Faber)	7	New York (Anderson)	2	At Chicago
Oct. 10—New York (Benton)	2	Chicago (Cicotte)	0	At New York
Oct. 11—New York (Schupp)	5	Chicago (Faber)	0	At New York
Oct. 13—Chicago (Faber)	8	New York (Sallee)	5	At Chicago
Oct. 15—Chicago (Faber)	4	New York (Benton)	2	At New York

1918—BOSTON A. L. (4) vs. CHICAGO N. L. (2)

Managers—E. G. Barrow, Boston; Fred L. Mitchell, Chicago.

Sept. 5	Boston (Ruth)	1	Chicago (Vaughn)	0	At Chicago
Sept. 6	Chicago (Tyler)	3	Boston (Bush)	1	At Chicago
Sept. 7	Boston (Mays)	2	Chicago (Vaughn)	1	At Chicago
Sept. 9	Boston (Ruth)	3	Chicago (Douglas)	2	At Boston
Sept. 10	Chicago (Vaughn)	3	Boston (Jones)	0	At Boston
Sept. 11	Boston (Mays)	2	Chicago (Tyler)	1	At Boston

1919—CINCINNATI N. L. (5) vs. CHICAGO A. L. (3)

Managers—Patrick J. Moran, Cincinnati; William Gleason, Chicago.

Oct. 1	Cincinnati (Ruether)	9	Chicago (Cicotte)	1	At Cincinnati
Oct. 2	Cincinnati (Sallee)	4	Chicago (Williams)	2	At Cincinnati
Oct. 3	Chicago (Kerr)	3	Cincinnati (Fisher)	0	At Chicago
Oct. 4	Cincinnati (Ring)	2	Chicago (Cicotte)	0	At Chicago
Oct. 6	Cincinnati (Eller)	5	Chicago (Williams)	0	At Chicago
Oct. 7	Chicago (Kerr)	5	Cincinnati (Ring)	4	At Cincinnati
Oct. 8	Chicago (Cicotte)	4	Cincinnati (Sallee)	1	At Cincinnati
Oct. 9	Cincinnati (Eller)	10	Chicago (Williams)	5	At Chicago (10 inn.)

1920—CLEVELAND A. L. (5) vs. BROOKLYN N. L. (2)

Managers—Tris Speaker, Cleveland; Wilbert J. Robinson, Brooklyn.

Oct. 5	Cleveland (Coveleskie)	3	Brooklyn (Marquard)	1	At Brooklyn
Oct. 6	Brooklyn (Grimes)	3	Cleveland (Bagby)	0	At Brooklyn
Oct. 7	Brooklyn (Smith)	2	Cleveland (Caldwell)	1	At Brooklyn
Oct. 9	Cleveland (Coveleskie)	5	Brooklyn (Cadore)	1	At Cleveland
Oct. 10	Cleveland (Bagby)	8	Brooklyn (Grimes)	1	At Cleveland
Oct. 11	Cleveland (Mails)	1	Brooklyn (Smith)	0	At Cleveland
Oct. 12	Cleveland (Coveleskie)	3	Brooklyn (Grimes)	0	At Cleveland

1921—NEW YORK N. L. (5) vs. NEW YORK A. L. (3)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 5	New York A (Mays)	3	New York N (Nehf)	0	At Polo Grounds
Oct. 6	New York A (Hoyt)	3	New York N (Douglas)	0	At Polo Grounds
Oct. 7	New York N (Barnes)	13	New York A (Quinn)	5	At Polo Grounds
Oct. 9	New York N (Douglas)	4	New York A (Mays)	2	At Polo Grounds
Oct. 10	New York A (Hoyt)	3	New York N (Nehf)	1	At Polo Grounds
Oct. 11	New York N (Barnes)	8	New York A (Shawkey)	5	At Polo Grounds
Oct. 12	New York N (Douglas)	2	New York A (Mays)	1	At Polo Grounds
Oct. 13	New York N (Nehf)	1	New York A (Hoyt)	0	At Polo Grounds

1922—NEW YORK N. L. (4) vs. NEW YORK A. L. (0)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 4	New York N (Ryan)	3	New York A (Bush)	2	At Polo Grounds
Oct. 5	New York N (tie)	3	New York A (tie)	3	At Polo Grounds (10 inn.)
Oct. 6	New York N (Scott)	3	New York A (Hoyt)	0	At Polo Grounds
Oct. 7	New York N (McQuillan)	4	New York A (Mays)	3	At Polo Grounds
Oct. 8	New York N (Nehf)	5	New York A (Bush)	3	At Polo Grounds

1923—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Miller J. Huggins, New York A. L.; John J. McGraw, New York N. L.

Oct. 10	New York N (Ryan)	5	New York A (Bush)	4	At Yankee Stadium
Oct. 11	New York A (Pennock)	4	New York N (McQuillan)	2	At Polo Grounds
Oct. 12	New York N (Nehf)	1	New York A (Jones)	0	At Yankee Stadium
Oct. 13	New York A (Shawkey)	8	New York N (Scott)	4	At Polo Grounds
Oct. 14	New York A (Bush)	8	New York N (Bentley)	1	At Yankee Stadium
Oct. 15	New York A (Pennock)	6	New York N (Nehf)	4	At Polo Grounds

1924—WASHINGTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—Stanley R. Harris, Washington; John J. McGraw, New York.

Oct. 4	New York (Nehf)	4	Washington (Johnson)	3	At Washington (12 inn.)
Oct. 5	Washington (Zachary)	4	New York (Bentley)	3	At Washington
Oct. 6	New York (McQuillan)	6	Washington (Marberry)	4	At New York
Oct. 7	Washington (Mogridge)	7	New York (Barnes)	4	At New York
Oct. 8	New York (Bentley)	6	Washington (Johnson)	2	At New York
Oct. 9	Washington (Zachary)	2	New York (Nehf)	1	At Washington
Oct. 10	Washington (Johnson)	4	New York (Bentley)	3	At Washington (12 inn.)

1925—PITTSBURGH N. L. (4) vs. WASHINGTON A. L. (3)

Managers—William B. McKechnie, Pittsburgh; Stanley R. Harris, Washington.

Oct. 7—Washington (Johnson)	4	Pittsburgh (Meadows)	1	At Pittsburgh
Oct. 8—Pittsburgh (Aldridge)	3	Washington (Coveleskie)	2	At Pittsburgh
Oct. 10—Washington (Ferguson)	4	Pittsburgh (Kremer)	3	At Washington
Oct. 11—Washington (Johnson)	4	Pittsburgh (Yde)	0	At Washington
Oct. 12—Pittsburgh (Aldridge)	6	Washington (Coveleskie)	3	At Washington
Oct. 13—Pittsburgh (Kremer)	3	Washington (Ferguson)	2	At Pittsburgh
Oct. 15—Pittsburgh (Kremer)	9	Washington (Johnson)	7	At Pittsburgh

1926—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (3)

Managers—Rogers Hornsby, St. Louis; Miller J. Huggins, New York.

Oct. 2—New York (Pennock)	2	St. Louis (Sherdel)	1	At New York
Oct. 3—St. Louis (Alexander)	6	New York (Shocker)	2	At New York
Oct. 5—St. Louis (Haines)	4	New York (Ruether)	0	At St. Louis
Oct. 6—New York (Hoyt)	10	St. Louis (Reinhart)	5	At St. Louis
Oct. 7—New York (Pennock)	3	St. Louis (Sherdel)	2	At St. Louis (10 inn.)
Oct. 9—St. Louis (Alexander)	10	New York (Shawkey)	2	At New York
Oct. 10—St. Louis (Haines)	3	New York (Hoyt)	2	At New York

1927—NEW YORK A. L. (4) vs. PITTSBURGH N. L. (0)

Managers—Miller J. Huggins, New York; Owen J. Bush, Pittsburgh.

Oct. 5—New York (Hoyt)	5	Pittsburgh (Kremer)	4	At Pittsburgh
Oct. 6—New York (Pipgras)	6	Pittsburgh (Aldridge)	2	At Pittsburgh
Oct. 7—New York (Pennock)	8	Pittsburgh (Meadows)	1	At New York
Oct. 8—New York (Moore)	4	Pittsburgh (Miljus)	3	At New York

1928—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (0)

Managers—Miller J. Huggins, New York; William B. McKechnie, St. Louis.

Oct. 4—New York (Hoyt)	4	St. Louis (Sherdel)	1	At New York
Oct. 5—New York (Pipgras)	9	St. Louis (Alexander)	3	At New York
Oct. 7—New York (Zachary)	7	St. Louis (Haines)	3	At St. Louis
Oct. 9—New York (Hoyt)	7	St. Louis (Sherdel)	3	At St. Louis

1929—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Joseph V. McCarthy, Chicago.

Oct. 8—Philadelphia (Ehmke)	3	Chicago (Root)	1	At Chicago
Oct. 9—Philadelphia (Earnshaw)	9	Chicago (Malone)	3	At Chicago
Oct. 11—Chicago (Bush)	3	Philadelphia (Earnshaw)	1	At Philadelphia
Oct. 12—Philadelphia (Rommel)	10	Chicago (Blake)	8	At Philadelphia
Oct. 14—Philadelphia (Walberg)	3	Chicago (Malone)	2	At Philadelphia

1930—PHILADELPHIA A. L. (4) vs. ST. LOUIS N. L. (2)

Managers—Connie Mack, Philadelphia; Charles E. Street, St. Louis.

Oct. 1—Philadelphia (Grove)	5	St. Louis (Grimes)	2	At Philadelphia
Oct. 2—Philadelphia (Earnshaw)	6	St. Louis (Rhem)	1	At Philadelphia
Oct. 4—St. Louis (Hallahan)	5	Philadelphia (Walberg)	0	At St. Louis
Oct. 5—St. Louis (Haines)	3	Philadelphia (Grove)	1	At St. Louis
Oct. 6—Philadelphia (Grove)	2	St. Louis (Grimes)	0	At St. Louis
Oct. 8—Philadelphia (Earnshaw)	8	St. Louis (Hallahan)	1	At Philadelphia

1931—ST. LOUIS N. L. (4) vs. PHILADELPHIA A. L. (3)

Managers—Charles E. Street, St. Louis; Connie Mack, Philadelphia.

Oct. 1—Philadelphia (Grove)	6	St. Louis (Derringer)	2	At St. Louis
Oct. 2—St. Louis (Hallahan)	2	Philadelphia (Earnshaw)	0	At St. Louis
Oct. 5—St. Louis (Grimes)	5	Philadelphia (Grove)	2	At Philadelphia
Oct. 6—Philadelphia (Earnshaw)	3	St. Louis (Johnson)	0	At Philadelphia
Oct. 7—St. Louis (Hallahan)	5	Philadelphia (Hoyt)	1	At Philadelphia
Oct. 9—Philadelphia (Grove)	8	St. Louis (Derringer)	1	At St. Louis
Oct. 10—St. Louis (Grimes)	4	Philadelphia (Earnshaw)	2	At St. Louis

1932—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles J. Grimm, Chicago.

Sept. 28—New York (Ruffing)	12	Chicago (Bush)	6	At New York
Sept. 29—New York (Gomez)	5	Chicago (Warneke)	2	At New York
Oct. 1—New York (Pipgras)	7	Chicago (Root)	5	At Chicago
Oct. 2—New York (Moore)	13	Chicago (May)	6	At Chicago

1933—NEW YORK N. L. (4) vs. WASHINGTON A. L. (1)

Managers—William H. Terry, New York; Joseph E. Cronin, Washington.

Oct. 3	New York (Hubbell)	4	Washington (Stewart)	2	At New York
Oct. 4	New York (Schumacher)	6	Washington (Crowder)	1	At New York
Oct. 5	Washington (Whitehill)	4	New York (Fitzsimmons)	0	At Washington
Oct. 6	New York (Hubbell)	2	Washington (Weaver)	1	At Washington (11 inn)
Oct. 7	New York (Luque)	4	Washington (Russell)	3	At Washington (10 inn.)

1934—ST. LOUIS N. L. (4) vs. DETROIT A. L. (3)

Managers—Frank F. Frisch, St. Louis; Gordon S. Cochrane, Detroit.

Oct. 3	St. Louis (J. Dean)	8	Detroit (Crowder)	3	At Detroit
Oct. 4	Detroit (Rowe)	3	St. Louis (W. Walker)	2	At Detroit (12 inn.)
Oct. 5	St. Louis (P. Dean)	4	Detroit (Bridges)	1	At St. Louis
Oct. 6	Detroit (Auker)	10	St. Louis (W. Walker)	4	At St. Louis
Oct. 7	Detroit (Bridges)	3	St. Louis (J. Dean)	1	At St. Louis
Oct. 8	St. Louis (P. Dean)	4	Detroit (Rowe)	3	At Detroit
Oct. 9	St. Louis (J. Dean)	11	Detroit (Auker)	0	At Detroit

1935—DETROIT A. L. (4) vs. CHICAGO N. L. (2)

Managers—Gordon S. Cochrane, Detroit; Charles J. Grimm, Chicago.

Oct. 2	Chicago (Warneke)	3	Detroit (Rowe)	0	At Detroit
Oct. 3	Detroit (Bridges)	8	Chicago (Root)	3	At Detroit
Oct. 4	Detroit (Rowe)	6	Chicago (French)	5	At Chicago (11 inn.)
Oct. 5	Detroit (Crowder)	2	Chicago (Carleton)	1	At Chicago
Oct. 6	Chicago (Warneke)	3	Detroit (Rowe)	1	At Chicago
Oct. 7	Detroit (Bridges)	4	Chicago (French)	3	At Detroit

1936—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Sept. 30	Giants (Hubbell)	6	Yankees (Ruffing)	1	At Polo Grounds
Oct. 2	Yankees (Gomez)	18	Giants (Schumacher)	4	At Polo Grounds
Oct. 3	Yankees (Hadley)	2	Giants (Fitzsimmons)	1	At Yankee Stadium
Oct. 4	Yankees (Pearson)	5	Giants (Hubbell)	2	At Yankee Stadium
Oct. 5	Giants (Schumacher)	5	Yankees (Malone)	4	At Yankee Stadium (10 inn.)
Oct. 6	Yankees (Gomez)	13	Giants (Fitzsimmons)	5	At Polo Grounds

1937—NEW YORK A. L. (4) vs. NEW YORK N. L. (1)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Oct. 6	Yankees (Gomez)	8	Giants (Hubbell)	1	At Yankee Stadium
Oct. 7	Yankees (Ruffing)	8	Giants (Melton)	1	At Yankee Stadium
Oct. 8	Yankees (Pearson)	5	Giants (Schumacher)	1	At Polo Grounds
Oct. 9	Giants (Hubbell)	7	Yankees (Hadley)	3	At Polo Grounds
Oct. 10	Yankees (Gomez)	4	Giants (Melton)	2	At Polo Grounds

1938—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles L. Hartnett, Chicago.

Oct. 5	New York (Ruffing)	3	Chicago (Lee)	1	At Chicago
Oct. 6	New York (Gomez)	6	Chicago (Dean)	3	At Chicago
Oct. 8	New York (Pearson)	5	Chicago (Bryant)	2	At New York
Oct. 9	New York (Ruffing)	8	Chicago (Lee)	3	At New York

1939—NEW YORK A. L. (4) vs. CINCINNATI N. L. (0)

Managers—Joseph V. McCarthy, New York; William B. McKechnie, Cincinnati.

Oct. 4	New York (Ruffing)	2	Cincinnati (Derringer)	1	At New York
Oct. 5	New York (Pearson)	4	Cincinnati (Walters)	0	At New York
Oct. 7	New York (Hadley)	7	Cincinnati (Thompson)	3	At Cincinnati
Oct. 8	New York (Murphy)	7	Cincinnati (Walters)	4	At Cincinnati (10 inn.)

1940—CINCINNATI N. L. (4) vs. DETROIT A. L. (3)

Managers—William B. McKechnie, Cincinnati; Delmar D. Baker, Detroit.

Oct. 2	Detroit (Newsom)	7	Cincinnati (Derringer)	2	At Cincinnati
Oct. 3	Cincinnati (Walters)	5	Detroit (Rowe)	3	At Cincinnati
Oct. 4	Detroit (Bridges)	7	Cincinnati (Turner)	4	At Detroit
Oct. 5	Cincinnati (Derringer)	5	Detroit (Trout)	2	At Detroit
Oct. 6	Detroit (Newsom)	8	Cincinnati (Thompson)	0	At Detroit
Oct. 7	Cincinnati (Walters)	4	Detroit (Rowe)	0	At Cincinnati
Oct. 8	Cincinnati (Derringer)	2	Detroit (Newsom)	1	At Cincinnati

1941—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Joseph V. McCarthy, New York; Leo E. Durocher, Brooklyn.

Oct. 1	New York (Ruffing)	3	Brooklyn (Davis)	2	At New York
Oct. 2	Brooklyn (Wyatt)	3	New York (Chandler)	2	At New York
Oct. 4	New York (Russo)	2	Brooklyn (Casey)	1	At Brooklyn
Oct. 5	New York (Murphy)	7	Brooklyn (Casey)	4	At Brooklyn
Oct. 6	New York (Bonham)	3	Brooklyn (Wyatt)	1	At Brooklyn

1942—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (1)

Managers—William H. Southworth, St. Louis; Joseph V. McCarthy, New York.

Sept. 30	New York (Ruffing)	7	St. Louis (M. Cooper)	4	At St. Louis
Oct. 1	St. Louis (Beazley)	4	New York (Bonham)	3	At St. Louis
Oct. 3	St. Louis (White)	2	New York (Chandler)	0	At New York
Oct. 4	St. Louis (Lanier)	9	New York (Donald)	6	At New York
Oct. 5	St. Louis (Beazley)	4	New York (Ruffing)	2	At New York

1943—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (1)

Managers—Joseph V. McCarthy, New York; William H. Southworth, St. Louis.

Oct. 5	New York (Chandler)	4	St. Louis (Lanier)	2	At New York
Oct. 6	St. Louis (M. Cooper)	4	New York (Bonham)	3	At New York
Oct. 7	New York (Borowy)	6	St. Louis (Brazle)	2	At New York
Oct. 10	New York (Russo)	2	St. Louis (Brecheen)	1	At St. Louis
Oct. 11	New York (Chandler)	2	St. Louis (M. Cooper)	0	At St. Louis

1944—ST. LOUIS N. L. (4) vs. ST. LOUIS A. L. (2)

Managers—William H. Southworth, Cardinals; J. Luther Sewell, Browns.

Oct. 4	Browns (Galehouse)	2	Cardinals (M. Cooper)	1	At Sportsman's Park
Oct. 5	Cardinals (Donnelly)	3	Browns (Muncrief)	2	At Sportsman's Pk. (11 inn.)
Oct. 6	Browns (Kramer)	6	Cardinals (Wilks)	2	At Sportsman's Park
Oct. 7	Cardinals (Brecheen)	5	Browns (Jakucki)	1	At Sportsman's Park
Oct. 8	Cardinals (M. Cooper)	2	Browns (Galehouse)	0	At Sportsman's Park
Oct. 9	Cardinals (Lanier)	3	Browns (Potter)	1	At Sportsman's Park

1945—DETROIT A. L. (4) vs. CHICAGO N. L. (3)

Managers—Stephen F. O'Neill, Detroit; Charles J. Grimm, Chicago.

Oct. 3	Chicago (Borowy)	9	Detroit (Newhouser)	0	At Detroit
Oct. 4	Detroit (Trucks)	4	Chicago (Wyse)	1	At Detroit
Oct. 5	Chicago (Passeau)	3	Detroit (Overmire)	0	At Detroit
Oct. 6	Detroit (Trout)	4	Chicago (Prim)	1	At Chicago
Oct. 7	Detroit (Newhouser)	8	Chicago (Borowy)	4	At Chicago
Oct. 8	Chicago (Borowy)	8	Detroit (Trout)	7	At Chicago (12 inn.)
Oct. 10	Detroit (Newhouser)	9	Chicago (Borowy)	3	At Chicago

1946—ST. LOUIS N. L. (4) vs. BOSTON A. L. (3)

Managers—Edwin H. Dyer, St. Louis; Joseph E. Cronin, Boston.

Oct. 6	Boston (Johnson)	3	St. Louis (Pollet)	2	At St. Louis (10 innings)
Oct. 7	St. Louis (Brecheen)	3	Boston (Harris)	0	At St. Louis
Oct. 9	Boston (Ferriss)	4	St. Louis (Dickson)	0	At Boston
Oct. 10	St. Louis (Munger)	12	Boston (Hughson)	3	At Boston
Oct. 11	Boston (Dobson)	6	St. Louis (Brazle)	3	At Boston
Oct. 13	St. Louis (Brecheen)	4	Boston (Harris)	1	At St. Louis
Oct. 15	St. Louis (Brecheen)	4	Boston (Klinger)	3	At St. Louis

1947—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Stanley R. Harris, New York; Burton E. Shotton, Brooklyn.

Sept. 30	New York (Shea)	5	Brooklyn (Branca)	3	At New York
Oct. 1	New York (Reynolds)	10	Brooklyn (Lombardi)	3	At New York
Oct. 2	Brooklyn (Casey)	9	New York (Newsom)	8	At Brooklyn
Oct. 3	Brooklyn (Casey)	3	New York (Bevens)	2	At Brooklyn
Oct. 4	New York (Shea)	2	Brooklyn (Barney)	1	At Brooklyn
Oct. 5	Brooklyn (Branca)	8	New York (Page)	6	At New York
Oct. 6	New York (Page)	5	Brooklyn (Gregg)	2	At New York

1948—CLEVELAND A. L. (4) vs. BOSTON N. L. (2)

Managers—Louis Boudreau, Cleveland; William H. Southworth, Boston.

Oct. 6	Boston (Sain)	1	Cleveland (Feller)	0	At Boston
Oct. 7	Cleveland (Lemon)	4	Boston (Spahn)	1	At Boston
Oct. 8	Cleveland (Bearden)	2	Boston (Bickford)	0	At Cleveland
Oct. 9	Cleveland (Gromek)	2	Boston (Sain)	1	At Cleveland
Oct. 10	Boston (Spahn)	11	Cleveland (Feller)	5	At Cleveland
Oct. 11	Cleveland (Lemon)	4	Boston (Voiselle)	3	At Boston

1949—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Charles D. Stengel, New York; Burton E. Shotton, Brooklyn.

Oct. 5—New York (Reynolds)	1	Brooklyn (Newcombe)	0	At New York
Oct. 6—Brooklyn (Roe)	1	New York (Raschi)	0	At New York
Oct. 7—New York (Page)	4	Brooklyn (Branca)	3	At Brooklyn
Oct. 8—New York (Lopat)	6	Brooklyn (Newcombe)	4	At Brooklyn
Oct. 9—New York (Raschi)	10	Brooklyn (Barney)	6	At Brooklyn

1950—NEW YORK A. L. (4) vs. PHILADELPHIA N. L. (0)

Managers—Charles D. Stengel, New York; Edwin M. Sawyer, Philadelphia.

Oct. 4—New York (Raschi)	1	Philadelphia (Konstanty)	0	At Philadelphia
Oct. 5—New York (Reynolds)	2	Philadelphia (Roberts)	1	At Philadelphia (10 inn.)
Oct. 6—New York (Ferrick)	3	Philadelphia (Meyer)	2	At New York
Oct. 7—New York (Ford)	5	Philadelphia (Miller)	2	At New York

1951—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Charles D. Stengel, Yankees; Leo E. Durocher, Giants.

Oct. 4—Giants (Koslo)	5	Yankees (Reynolds)	1	At Yankee Stadium
Oct. 5—Yankees (Lopat)	3	Giants (Jansen)	1	At Yankee Stadium
Oct. 6—Giants (Hearn)	6	Yankees (Raschi)	2	At Polo Grounds
Oct. 8—Yankees (Reynolds)	6	Giants (Maglie)	2	At Polo Grounds
Oct. 9—Yankees (Lopat)	13	Giants (Jansen)	1	At Polo Grounds
Oct. 10—Yankees (Raschi)	4	Giants (Koslo)	3	At Yankee Stadium

1952—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Charles D. Stengel, New York; Charles W. Dressen, Brooklyn.

Oct. 1—Brooklyn (Black)	4	New York (Reynolds)	2	At Brooklyn
Oct. 2—New York (Raschi)	7	Brooklyn (Erskine)	1	At Brooklyn
Oct. 3—Brooklyn (Roe)	5	New York (Lopat)	3	At New York
Oct. 4—New York (Reynolds)	2	Brooklyn (Black)	0	At New York
Oct. 5—Brooklyn (Erskine)	6	New York (Sain)	5	At New York (12 inns.)
Oct. 6—New York (Raschi)	3	Brooklyn (Loes)	2	At Brooklyn
Oct 7—New York (Reynolds)	4	Brooklyn (Black)	2	At Brooklyn

1953—NEW YORK A. L. (4) vs. BROOKLYN N. L. (2)

Managers—Charles D. Stengel, New York; Charles W. Dressen, Brooklyn.

Sept. 30—New York (Sain)	9	Brooklyn (Labine)	5	At New York
Oct. 1—New York (Lopat)	4	Brooklyn (Roe)	2	At New York
Oct. 2—Brooklyn (Erskine)	3	New York (Raschi)	2	At Brooklyn
Oct. 3—Brooklyn (Loes)	7	New York (Ford)	3	At Brooklyn
Oct. 4—New York (McDonald)	11	Brooklyn (Podres)	7	At Brooklyn
Oct. 5—New York (Reynolds)	4	Brooklyn (Labine)	3	At New York

1954—NEW YORK N. L. (4) vs. CLEVELAND A. L. (0)

Managers—Leo E. Durocher, New York; Alfonso R. Lopez, Cleveland.

Sept. 29—New York (Grissom)	5	Cleveland (Lemon)	2	At New York
Sept. 30—New York (Antonelli)	3	Cleveland (Wynn)	1	At New York
Oct. 1—New York (Gomez)	6	Cleveland (Garcia)	2	At Cleveland
Oct. 2—New York (Liddle)	7	Cleveland (Lemon)	4	At Cleveland

(For 1955 World Series statistics see index.)

World Series Club Standing
(Through 1954)

	Series	Won	Lost	Pct.
Boston (A)	6	5	1	.833
New York (A)	20	16	4	.800
St. Louis (N)	9	6	3	.667
Cincinnati (N)	3	2	1	.667
Cleveland (A)	3	2	1	.667
Chicago (A)	3	2	1	.667
Philadelphia (A)	8	5	3	.625
Boston (N)	2	1	1	.500
Pittsburgh (N)	4	2	2	.500
New York (N)	14	5	9	.357
Washington (A)	3	1	2	.333
Detroit (A)	7	2	5	.286
Chicago (N)	10	2	8	.200
St. Louis (A)	1	0	1	.000
Philadelphia (N)	2	0	2	.000
Brooklyn (N)	7	0	7	.000

RECAPITULATION

	Won
American League	33
National League	18

National League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.
1876	Chicago	Albert G. Spalding	52	14	.788
1877	Boston	Harry Wright	31	17	.646
1878	Boston	Harry Wright	41	19	.683
1879	Providence	George Wright	59	25	.702
1880	Chicago	Adrian C. Anson	67	17	.798
1881	Chicago	Adrian C. Anson	56	28	.667
1882	Chicago	Adrian C. Anson	55	29	.655
1883	Boston	John F. Morrill	63	35	.643
1884	Providence	Frank C. Bancroft	84	28	.750
1885	Chicago	Adrian C. Anson	87	25	.777
1886	Chicago	Adrian C. Anson	90	34	.726
1887	Detroit	W. H. Watkins	79	45	.637
1888	New York	James J. Mutrie	84	47	.641
1889	New York	James J. Mutrie	83	43	.659
1890	Brooklyn	William H. McGunnigle	86	43	.667
1891	Boston	Frank G. Selee	87	51	.630
1892	Boston	Frank G. Selee	102	48	.680
1893	Boston	Frank G. Selee	86	43	.667
1894	Baltimore	Edward H. Hanlon	89	39	.695
1895	Baltimore	Edward H. Hanlon	87	43	.669
1896	Baltimore	Edward H. Hanlon	90	39	.698
1897	Boston	Frank G. Selee	93	39	.705
1898	Boston	Frank G. Selee	102	47	.685
1899	Brooklyn	Edward H. Hanlon	88	42	.677
1900	Brooklyn	Edward H. Hanlon	82	54	.603
1901	Pittsburgh	Fred C. Clarke	90	49	.647
1902	Pittsburgh	Fred C. Clarke	103	36	.741
1903	Pittsburgh	Fred C. Clarke	91	49	.650
1904	New York	John J. McGraw	106	47	.693
1905*	New York	John J. McGraw	105	48	.686
1906	Chicago	Frank L. Chance	116	36	.763
1907*	Chicago	Frank L. Chance	107	45	.704
1908*	Chicago	Frank L. Chance	99	55	.643
1909*	Pittsburgh	Fred C. Clarke	110	42	.724
1910	Chicago	Frank L. Chance	104	50	.675
1911	New York	John J. McGraw	99	54	.647
1912	New York	John J. McGraw	103	48	.682
1913	New York	John J. McGraw	101	51	.664
1914*	Boston	George T. Stallings	94	59	.614
1915	Philadelphia	Patrick J. Moran	90	62	.592
1916	Brooklyn	Wilbert Robinson	94	60	.610
1917	New York	John J. McGraw	98	56	.636
1918	Chicago	Fred L. Mitchell	84	45	.651
1919*	Cincinnati	Patrick J. Moran	96	44	.686
1920	Brooklyn	Wilbert Robinson	93	61	.604
1921*	New York	John J. McGraw	94	59	.614
1922*	New York	John J. McGraw	93	61	.604
1923	New York	John J. McGraw	95	58	.621
1924	New York	John J. McGraw	93	60	.608
1925*	Pittsburgh	William B. McKechnie	95	58	.621
1926*	St. Louis	Rogers Hornsby	89	65	.578
1927	Pittsburgh	Owen J. Bush	94	60	.610
1928	St. Louis	William B. McKechnie	95	59	.617
1929	Chicago	Joseph V. McCarthy	98	54	.645
1930	St. Louis	Charles E. Street	92	62	.597
1931*	St. Louis	Charles E. Street	101	53	.656
1932	Chicago	Charles J. Grimm	90	64	.584
1933*	New York	William H. Terry	91	61	.599
1934*	St. Louis	Frank F. Frisch	95	58	.621
1935	Chicago	Charles J. Grimm	100	54	.649
1936	New York	William H. Terry	92	62	.597
1937	New York	William H. Terry	95	57	.625
1938	Chicago	Charles L. Hartnett	89	63	.586
1939	Cincinnati	William B. McKechnie	97	57	.630
1940*	Cincinnati	William B. McKechnie	100	53	.654
1941	Brooklyn	Leo E. Durocher	100	54	.649
1942*	St. Louis	William H. Southworth	106	48	.688
1943	St. Louis	William H. Southworth	105	49	.682
1944*	St. Louis	William H. Southworth	105	49	.682
1945	Chicago	Charles J. Grimm	98	56	.636
1946*	St. Louis	Edwin H. Dyer	98	58	.628
1947	Brooklyn	Burton E. Shotton	94	60	.610
1948	Boston	William H. Southworth	91	62	.595
1949	Brooklyn	Burton E. Shotton	97	57	.630
1950	Philadelphia	Edwin M. Sawyer	91	63	.591
1951	New York	Leo E. Durocher	98	59	.624
1952	Brooklyn	Charles W. Dressen	96	57	.627
1953	Brooklyn	Charles W. Dressen	99	52	.656
1954*	New York	Leo E. Durocher	97	57	.630

* World Series winner.

American League Pennant Winners

1901	Chicago	Clark C. Griffith	83	53	.610
1902	Philadelphia	Connie Mack	83	53	.610
1903*	Boston	James J. Collins	91	47	.659
1904	Boston	James J. Collins	95	59	.617
1905	Philadelphia	Connie Mack	92	56	.622
1906*	Chicago	Fielder A. Jones	93	58	.616
1907	Detroit	Hugh A. Jennings	92	58	.613
1908	Detroit	Hugh A. Jennings	90	63	.588
1909	Detroit	Hugh A. Jennings	98	54	.645
1910*	Philadelphia	Connie Mack	102	48	.680
1911*	Philadelphia	Connie Mack	101	50	.669
1912*	Boston	J. Garland Stahl	105	47	.691
1913*	Philadelphia	Connie Mack	96	57	.627
1914	Philadelphia	Connie Mack	99	53	.651
1915*	Boston	William F. Carrigan	101	50	.669
1916*	Boston	William F. Carrigan	91	63	.591
1917*	Chicago	Clarence H. Rowland	100	54	.649
1918*	Boston	Edward G. Barrow	75	51	.595
1919	Chicago	William Gleason	88	52	.629
1920*	Cleveland	Tris E. Speaker	98	56	.636
1921	New York	Miller J. Huggins	98	55	.641
1922	New York	Miller J. Huggins	94	60	.610
1923*	New York	Miller J. Huggins	98	54	.645
1924*	Washington	Stanley R. Harris	92	62	.597
1925	Washington	Stanley R. Harris	96	55	.636
1926	New York	Miller J. Huggins	91	63	.591
1927*	New York	Miller J. Huggins	110	44	.714
1928*	New York	Miller J. Huggins	101	53	.656
1929*	Philadelphia	Connie Mack	104	46	.693
1930*	Philadelphia	Connie Mack	102	52	.662
1931	Philadelphia	Connie Mack	107	45	.704
1932*	New York	Joseph V. McCarthy	107	47	.695
1933	Washington	Joseph E. Cronin	99	53	.651
1934	Detroit	Gordon S. Cochrane	101	53	.656
1935*	Detroit	Gordon S. Cochrane	93	58	.616
1936*	New York	Joseph V. McCarthy	102	51	.667
1937*	New York	Joseph V. McCarthy	102	52	.662
1938*	New York	Joseph V. McCarthy	99	53	.651
1939*	New York	Joseph V. McCarthy	106	45	.702
1940	Detroit	Delmar D. Baker	90	64	.584
1941*	New York	Joseph V. McCarthy	101	53	.656
1942	New York	Joseph V. McCarthy	103	51	.669
1943*	New York	Joseph V. McCarthy	98	56	.636
1944	St. Louis	James L. Sewell	89	65	.578
1945*	Detroit	Stephen F. O'Neill	88	65	.575
1946	Boston	Joseph E. Cronin	104	50	.675
1947*	New York	Stanley R. Harris	97	57	.630
1948*	Cleveland	Louis Boudreau	97	58	.626
1949*	New York	Charles D. Stengel	97	57	.630
1950*	New York	Charles D. Stengel	98	56	.636
1951*	New York	Charles D. Stengel	98	56	.636
1952*	New York	Charles D. Stengel	95	59	.617
1953	New York	Charles D. Stengel	105	49	.682
1954	Cleveland	Alfonso R. Lopez	111	43	.721

* World Series winner.

National League Batting Champions

Year	Avg.	Year	Avg.	Year	Avg.
1876—R. Barnes, Chi.	403	1902—C. H. Beaumont, Pitts.	357	1929—Frank J. O'Doul, Phila.	398
1877—J. L. White, Bos.	385	1903—J. P. Wagner, Pitts.	355	1930—Wm. H. Terry, N. Y.	401
1878—A. Dalrymple, Mil.	356	1904—J. P. Wagner, Pitts.	349	1931—C. J. Hafey, St. L.	349
1879—A. C. Anson, Chi.	407	1905—J. B. Seymour, Cin.	377	1932—F. J. O'Doul, Bklyn.	368
1880—G. F. Gore, Chi.	365	1906—J. P. Wagner, Pitts.	339	1933—C. H. Klein, Phila.	368
1881—A. C. Anson, Chi.	399	1907—J. P. Wagner, Pitts.	350	1934—P. G. Waner, Pitts.	362
1882—D. Brouthers, Buf.	367	1908—J. P. Wagner, Pitts.	354	1935—F. Vaughan, Pitts.	385
1883—D. Brouthers, Buf.	371	1909—J. P. Wagner, Pitts.	339	1936—P. G. Waner, Pitts.	373
1884—J. O'Rourke, Buf.	350	1910—S. N. Magee, Phila.	331	1937—J. M. Medwick, St. L.	374
1885—R. Connor, N. Y.	371	1911—J. P. Wagner, Pitts.	334	1938—E. N. Lombardi, Cin.	342
1886—M. J. Kelly, Chi.	388	1912—H. Zimmerman, Chi.	372	1939—J. R. Mize, St. L.	349
1887—A. C. Anson, Chi.	421	1913—J. Daubert, Bklyn.	350	1940—D. Garms, Pitts.	355
1888—A. C. Anson, Chi.	343	1914—J. Daubert, Bklyn.	329	1941—H. P. Reiser, Bklyn.	343
1889—D. Brouthers, Bos.	373	1915—L. Doyle, N. Y.	320	1942—E. N. Lombardi, Bos.	330
1890—J. Glasscock, N. Y.	336	1916—H. Chase, Cin.	339	1943—S. F. Musial, St. L.	357
1891—W. Hamilton, Phila.	338	1917—E. J. Roush, Cin.	341	1944—F. Walker, Bklyn.	357
1892 C. Childs, Cleve.	335	1918—Z. D. Wheat, Bklyn.	335	1945—P. J. Cavarretta, Chicago	355
1892 D. Brouthers, Bklyn.	335	1919—E. J. Roush, Cin.	321	1946—S. F. Musial, St. L.	365
1893—Hugh Duffy, Bos.	378	1920—Rogers Hornsby, St. L.	370	1947—H. W. Walker, Phila.	363
1894—Hugh Duffy, Bos.	438	1921—Rogers Hornsby, St. L.	397	1948—S. F. Musial, St. L.	376
1895—J. Burkett, Cleve.	423	1922—Rogers Hornsby, St. L.	401	1949—J. R. Robinson, Bklyn.	342
1896—J. Burkett, Cleve.	410	1923—Rogers Hornsby, St. L.	384	1950—S. F. Musial, St. L.	346
1897—W. Keeler, Balt.	432	1924—Rogers Hornsby, St. L.	424	1951—S. F. Musial, St. L.	355
1898—W. Keeler, Balt.	379	1925—Rogers Hornsby, St. L.	403	1952—S. F. Musial, St. Louis	336
1899—E. J. Delahanty, Phila.	408	1926—Eugene Hargrave, Cin.	353	1953— C. A. Furillo, Bklyn.	344
1900—J. P. Wagner, Pitts.	380	1927—Paul G. Waner, Pitts.	380	1954—Willie Mays, N. Y.	345
1901—J. Burkett, St. L.	382	1928—Rogers Hornsby, Bos.	387		

American League Batting Champions

1901—N. Lajoie, Phila.	422	1919—T. R. Cobb, Det.	384	1937—C. L. Gehringer, Det.	371
1902—E. J. Delahanty, Wash.	376	1920—G. H. Sisler, St. L.	407	1938—J. E. Foxx, Bos.	349
1903—N. Lajoie, Cleve.	355	1921—H. E. Heilmann, Det.	394	1939—J. P. DiMaggio, N. Y.	381
1904—N. Lajoie, Cleve.	381	1922—G. H. Sisler, St. L.	420	1940—J. P. DiMaggio, N. Y.	352
1905—Elmer Flick, Cleve.	306	1923—H. E. Heilmann, Det.	403	1941—T. S. Williams, Bos.	406
1906—G. Stone, St. L.	358	1924—G. H. Ruth, N. Y.	378	1942—T. S. Williams, Bos.	356
1907—T. R. Cobb, Det.	350	1925—H. E. Heilmann, Det.	393	1943—L. B. Appling, Chi.	328
1908—T. R. Cobb, Det.	324	1926—H. E. Manush, Det.	378	1944—L. Boudreau, Cleve.	327
1909—T. R. Cobb, Det.	377	1927—H. E. Heilmann, Det.	398	1945—G. H. Stirnweiss, N. Y.	309
1910—T. R. Cobb, Det.	385	1928—L. A. Goslin, Wash.	379	1946—J. B. Vernon, Wash.	353
1911—T. R. Cobb, Det.	420	1929—L. A. Fonseca, Cleve.	369	1947—T. S. Williams, Bos.	343
1912—T. R. Cobb, Det.	410	1930—A. H. Simmons, Phila.	381	1948—T. S. Williams, Bos.	369
1913—T. R. Cobb, Det.	390	1931—A. H. Simmons, Phila.	390	1949—G. C. Kell, Det.	343
1914—T. R. Cobb, Det.	368	1932—D. Alexander, Det.-Bos.	367	1950—W. D. Goodman, Bos.	354
1915—T. R. Cobb, Det.	369	1933—J. E. Foxx, Phila.	356	1951—Ferris Fain, Phila.	344
1916—T. Speaker, Cleve.	386	1934—H. L. Gehrig, N. Y.	363	1952—Ferris Fain, Phila.	327
1917—T. R. Cobb, Det.	383	1935—C. S. Myer, Wash.	349	1953—J. B. Vernon, Wash.	337
1918—T. R. Cobb, Det.	382	1936—L. B. Appling, Chi.	388	1954—R. F. Avila, Cleve.	341

National Baseball Congress Champions

1935—Bismarck (N. D.) Corwin-Churchill
1936—Duncan (Okla.) Halliburtons
1937—Enid (Okla.) Eason Oilers
1938—Buford (Ga.) Bona Allens
1939—Duncan (Okla.) Halliburtons
1940—Enid (Okla.) Champlins
1941—Enid (Okla.) Champlins
1942—Wichita (Kans.) Boeing Bombers
1943—Camp Wheeler (Ga.) Spokes
1944—Sherman Field (Kans.) Flyers
1945—Enid (Okla.) Army Air Field
1946—St. Joseph (Mich.) Autos
1947—Ft. Wayne (Ind.) General Electrics
1948—Ft. Wayne (Ind.) General Electrics
1949—Ft. Wayne (Ind.) General Electrics
1950—Ft. Wayne (Ind.) Capeharts
1951—Sinton (Texas) Plymouth Oilers
1952—Fort Myer (Va.) Colonials
1953—Fort Leonard Wood (Mo.)
1954—Wichita (Kans.) Boeing Bombers

Feller's Pitching Masterpieces

NO-HIT GAMES

Date	Opponent	Score	SO	BB
April 16, 1940	Chicago	1–0	8	5
April 30, 1946	New York	1–0	11	5
July 1, 1951	Detroit	2–1	5	3

ONE-HIT GAMES

April 20, 1938	St. Louis	9–0	6	6
May 25, 1939	Boston	11–0	10	5
June 27, 1939	Detroit	5–0	13	6
July 12, 1940	Philadelphia	1–0	13	2
Sept. 26, 1941	St. Louis	3–2	6	7
Sept. 19, 1945	Detroit	2–0	7	4
July 31, 1946	Boston	4–1	9	9
Aug. 8, 1946	Chicago	5–0	5	3
April 22, 1947	St. Louis	5–0	10	1
May 2, 1947	Boston	2–0	10	2
April 23, 1952	St. Louis	0–1	5	6
May 1, 1955	Boston	2–0	2	1

BASEBALL'S HALL OF FAME

Cooperstown, N. Y.

Lifetime Records of Immortals

Year elected	Name and playing years	Games	Batting Average
1939	Anson, Adrian C., 1876–97	2253	.339
1954	Baker, F. J., 1908–22	1575	.308
1945	Bresnahan, Roger, 1897–1915	1410	.279
1945	Brouthers, Dan, 1879–96	1653	.348
1946	Burkett, Jesse C., 1890–1905	2063	.342
1946	Chance, Frank L., 1898–1914	1232	.297
1945	Clarke, Fred C., 1894–1915	2204	.315
1936	Cobb, Tyrus R., 1905–28	3033	.367
1947	Cochrane, Gordon S., 1925–37	1482	.320
1939	Collins, Edward T., 1906–30	2826	.333
1945	Collins, James J., 1895–1908	1718	.294
1939	Comiskey, C. A., 1882–94	1383	.269
1945	Delahanty, E. J., 1888–1903	1825	.346
1953	Dickey, Wm. M., 1928–46	1789	.313
1954	DiMaggio, J. P., 1936–51	1736	.325
1945	Duffy, Hugh, 1888–1906	1722	.330
1946	Evers, John J., 1902–19	1776	.270
1939	Ewing, Wm. B., 1880–97	1280	.311
1951	Foxx, James E., 1925–1945	2317	.325
1947	Frisch, Frank F., 1919–37	2311	.316
1939	Gehrig, H. Louis, 1923–39	2164	.340
1949	Gehringer, Charles L., 1924–42	2323	.321
1954	Hartnett, C. L., 1922–41	1990	.297
1952	Heilmann, Harry E., 1914–32	2146	.342
1942	Hornsby, Rogers, 1915–37	2259	.358
1945	Jennings, H. A., 1891–1908	1264	.314
1939	Keeler, Wm. H., 1892–1910	2124	.345
1945	Kelly, Michael J., 1878–93	1493	.315
1937	Lajoie, Napoleon, 1896–1916	2475	.339
1946	McCarthy, Thomas, 1884–96	1268	.294
1937	McGraw, John J., 1891–1906	1082	.334
1937	Mack, Connie, 1886–96	736	.249
1953	Maranville, W. J., 1912–35	2670	.258
1945	O'Rourke, James, 1876–94	1750	.315
1951	Ott, Melvin T., 1926–1947	2730	.304
1945	Robinson, Wilbert, 1886–1902	1316	.280
1936	Ruth, G. H. (Babe), 1914–35	2503	.342
1954	Schalk, R. W., 1912–29	1760	.253
1953	Simmons, Al H., 1924–44	2215	.334
1939	Sisler, George H., 1915–30	2055	.340
1937	Speaker, T. E., 1907–28	2789	.344
1953	Terry, Wm., A., 1924–36	1721	.341
1946	Tinker, Joseph B., 1902–16	1641	.264
1948	Traynor, Harold J., 1920–37	1941	.320
1936	Wagner, John P., 1897–1917	2785	.329
1953	Wallace, R. J., 1894–1918	2369	.267
1952	Waner, Paul G., 1926–45	2549	.333
1937	Wright, George, 1876–82	315	.251

PITCHERS

Year elected	Name and playing years	Won	Lost
1938	Alexander, Grover C., 1911–30	373	208
1953	Bender, Charles A., 1907–17	212	128
1949	Brown, Mordecai, 1903–16	239	131
1946	Chesbro, John D., 1899–1909	199	128
1953	Dean, Jerome H., 1930–41	150	83
1946	Griffith, Clark C., 1891–1908	237	140
1947	Grove, Robert M., 1925–41	300	141
1947	Hubbell, Carl O., 1928–43	253	154
1936	Johnson, Walter P., 1907–27	414	276
1954	Lyons, T. A., 1923–46	260	230
1946	McGinnity, Joseph J., 1899–1908	248	141
1936	Mathewson, Christopher, 1900–16	373	188
1949	Nichols, Charles A., 1890–1906	360	202
1948	Pennock, Herbert J., 1912–34	239	161
1946	Plank, Edward S., 1901–17	324	190
1939	Radbourne, Charles G., 1880–91	308	191
1954	Vance, A. C., 1915–35	197	140
1946	Waddell, George E., 1897–1910	203	143
1946	Walsh, Edward A., 1904–17	195	126
1937	Young, Denton T., 1890–1911	511	315

SELECTED FOR MERITORIOUS SERVICE

Morgan G. Bulkley, first National League president. B. Bancroft Johnson, first American League president. Henry Chadwick, pioneer writer, statistician. Alexander J. Cartwright, organizer of first baseball club. Albert G. Spalding, early player, founder of sporting goods firm. William A. Cummings, early pitcher credited with originating curve ball. Judge Kenesaw M. Landis, baseball's first commissioner. William Klem, with National League umpiring staff for 46 years. Thomas Connolly, with American League umpiring staff for 52 years. Harry Wright, manager in National League for three decades. Edward G. Barrow, American League manager and executive.

BABE RUTH'S MAJOR LEAGUE HOME-RUN RECORD

(A) American League; (N) National League

Regular Season

Year	Club	Home runs
1914	Boston (A)	0
1915	Boston (A)	4
1916	Boston (A)	3
1917	Boston (A)	2
1918	Boston (A)	11
1919	Boston (A)	29
1920	New York (A)	54
1921	New York (A)	59
1922	New York (A)	35
1923	New York (A)	41
1924	New York (A)	46
1925	New York (A)	25
1926	New York (A)	47
1927	New York (A)	60
1928	New York (A)	54
1929	New York (A)	46
1930	New York (A)	49
1931	New York (A)	46
1932	New York (A)	41
1933	New York (A)	34
1934	New York (A)	22
1935	Boston (N)	6
	Total	714

World Series

Year	Club	Home runs
1915	Boston (A)	0
1916	Boston (A)	0
1918	Boston (A)	0
1921	New York (A)	1
1922	New York (A)	0
1923	New York (A)	3
1926	New York (A)	4
1927	New York (A)	2
1928	New York (A)	3
1932	New York (A)	2
	Total	15

All-Star Game

Year	Club	Home runs
1933	American	1
1934	American	0
	Total	1
Grand total		730

Major League Individual All-Time Records

Highest batting average, season—Hugh Duffy, Boston (N), 1894 438

Highest batting average (10 or more years)—Ty Cobb, Detroit and Philadelphia (A), 1905–28 367

Most years batting over .300—Ty Cobb 23

Most hits—Ty Cobb 4,191

Most hits, season—George Sisler, St. Louis (A), 1920 257

Most consecutive hits, game—Wilbert Robinson, Baltimore (N), 1892 7

Most successive hits—Frank Higgins, Boston (A), 1938; Walt Dropo, Detroit, 1952 12

Most consecutive games batted safely—Joe DiMaggio, New York (A), May 15 to July 16, 1941, inclusive 56

Most long hits—Babe Ruth, Boston and New York (A), Boston (N), 1914–35 (506 2b, 136 3b, 714 home runs) 1,356

Most total bases—Ty Cobb 5,863

Most total bases, season—Babe Ruth, New York (A), 1921 457

Most total bases, game—Joe Adcock, Milwaukee vs. Brooklyn, July 31, 1954 ... 18

Most home runs—Babe Ruth 714

Most home runs, season—Babe Ruth, New York (A), 1927 60

Most home runs, 1 game—Lowe, Boston (N), 1894; Delahanty, Phila. (N), 1896; Gehrig, N. Y. (A), 1932; Klein, Phila. (N), 1936 (10 innings); Seerey, Chicago (A), 1948 (11 innings); Hodges, Brooklyn, 1950; Adcock, Milwaukee, 1954 ... 4

Most 3-base hits—Sam Crawford, Cincinnati (N), 1899–1902; Detroit (A), 1903–17 312

Most 3-base hits, season—J. Owen Wilson, Pittsburgh (N), 1912 36

Most 2-base hits—Tris E. Speaker, Boston, Cleveland, Washington, Philadelphia (A), 1907–28 793

Most 2-base hits, season—Earl W. Webb, Boston (A), 1931 67

Most singles—Ty Cobb 3,052

Most singles, season (modern record)—Lloyd Waner, Pittsburgh (N), 1927 198

Most runs—Ty Cobb 2,244

Most runs batted in—Babe Ruth ... 2,209

Most runs batted in, season—Hack Wilson, Chicago (N), 1930 190

Most runs batted in, single game—James L. Bottomley, St. Louis (N) vs. Brooklyn, Sept. 16, 1924 12

Most games played—Ty Cobb 3,033

Most consecutive games played—Lou Gehrig, New York (A). Streak started June 1, 1925, and stopped May 2, 1939 2,130

Longest service as player—Eddie Collins, Philadelphia and Chicago (A), 1906–30; Bobby Wallace, Cleveland (N), St. Louis (A), St. Louis (N), 1894–1918 .. 25 years

Most times at bat—Ty Cobb 11,429

Most bases on balls—Babe Ruth 2,056

Most bases on balls, season—Babe Ruth, 1923 170

Most bases on balls, game (modern record)—Jimmy Foxx Boston (A), 1938 6

Most stolen bases—Ty Cobb 892

Most stolen bases, season (modern record)—Ty Cobb, Detroit (A), 1915 96

Fewest strikeouts, season (150 or more games)—Joe Sewell, Cleveland (A), 1925, 1929 4

Most consecutive years manager, one club—Connie Mack, Phila. (A), 1901–50 . 50

PITCHING

Most games—Cy Young (516 in National League, 390 in American League), 1890–1911 906

Most games won—Cy Young, Cleveland (N), 1890–98; St. Louis (N), 1899–1900; Boston (A), 1901–08; Cleveland (A), 1909–11 (part); Boston (N), 1911 (part) 511

Most complete games, season—Jack Chesbro, New York (A), 1904 48

Most games, season (modern record)—Jim Konstanty, Philadelphia (N), 1950 .. 74

Most innings, season—Ed Walsh, Chicago (A), 1908 464

Lowest earned-run average, season—Ferdie Schupp, New York (N), 1916 ..... 0.90

Fewest hits in two consecutive games—John Vander Meer, Cincinnati (N), 1938 (both no-hit games) 0

Most games won, season (modern record)—Jack Chesbro, New York (A), 1904 . 41

Most consecutive games won, season—Tim Keefe, New York (N), 1888; Rube Marquard, New York (N), 1912 19

Most shutout games—Walter Johnson, Washington (A), 1907–27 113

Most shutout games, season—Grover Alexander, Philadelphia (N), 1916 16

Most consecutive shutout innings—Walter Johnson, 1913 56

Most strikeouts—Walter Johnson ... 3,497

Most strikeouts, season (modern record)—Bobby Feller, Cleveland (A), 1946 .. 348

Most strikeouts in 9 innings (1901 to date)—Bobby Feller, Cleveland (A) vs. Detroit, Oct. 2, 1938 18

MAJOR LEAGUE STATISTICS

Source: American League and National League Service Bureaus.

lf—Left-field foul line; cf—center field; rf—right-field foul line. (2)—Indicates double-header scheduled.

American League

Club, nickname and grounds	Distance, feet lf	cf	rf	Seating capacity	Record attendance	Visiting club	Date
Baltimore Orioles—Municipal Stadium	309	450	309	47,855	46,796	New York (2)	May 16, 1954
Boston Red Sox—Fenway Park	315	420	302	34,824	41,766	New York (2)	Aug. 12, 1934
Chicago White Sox—Comiskey Park	352	415	352	46,550	53,940	New York (night)	June 8, 1951
Cleveland Indians—Municipal Stadium	320	410	320	73,500	84,587	New York (2)	Sept. 12, 1954
Detroit Tigers—Briggs Stadium	340	440	325	52,954	58,369	New York (2)	July 20, 1947
Kansas City Athletics—Municipal Stadium	330	421	353	30,512	33,585	New York (2, night)	July 24, 1955
New York Yankees—Yankee Stadium	301	461	296	67,000	81,841	Boston (2)	May 30, 1938
Washington Senators—Griffith Stadium	388	426	328	27,523	35,563	New York (2)	July 4, 1936

National League

Brooklyn Dodgers—Ebbets Field	343	405	297	32,111	41,209	New York (2)	May 30, 1934
Chicago Cubs—Wrigley Field	355	400	353	36,755	46,965	Pittsburgh (2)	May 31, 1948
Cincinnati Redlegs—Crosley Field	328	387	342	29,584	36,961	Pittsburgh (2)	Apr. 27, 1947
Milwaukee Braves—County Stadium	320	402	315	43,110	46,944	New York (night)	Aug. 27, 1954
New York Giants—Polo Grounds	279	480	257	55,000	60,747	Brooklyn (2)	May 31, 1937
Philadelphia Phillies—Connie Mack Stadium	334	468	331	33,166	40,720	Brooklyn (2)	May 11, 1947
Pittsburgh Pirates—Forbes Field	365	457	300	34,249	43,586	New York (2)	Aug. 31, 1938
St. Louis Cardinals—Busch Stadium	351	426	310	30,500	45,770	Chicago (2)	July 12, 1931

RECORD OF MAJOR LEAGUE ALL-STAR GAMES

Date	Winning league and pitcher	Runs	Losing league and pitcher	Runs	Where held	Paid attendance	Receipts
July 6, 1933	American (Gomez)	4	National (Hallahan)	2	Chicago (A)	49,200	$ 51,203.50*
July 10, 1934	American (Harder)	9	National (Mungo)	7	New York (N)	48,363	52,982.00
July 8, 1935	American (Gomez)	4	National (Walker)	1	Cleveland (A)	69,812	82,179.12
July 7, 1936	National (J. Dean)	4	American (Grove)	3	Boston (N)	25,556	24,588.80
July 7, 1937	American (Gomez)	8	National (J. Dean)	3	Washington (A)	31,391	28,475.18
July 6, 1938	National (Vander Meer)	4	American (Gomez)	1	Cincinnati (N)	27,067	38,469.05
July 11, 1939	American (Bridges)	3	National (Lee)	1	New York (A)	62,892	75,701.00
July 9, 1940	National (Derringer)	4	American (Ruffing)	0	St. Louis (N)	32,373	36,723.03
July 8, 1941	American (Smith)	7	National (Passeau)	5	Detroit (A)	54,674	63,267.08
July 6, 1942	American (Chandler)	3	National (M. Cooper)	1	New York (N)	33,694	86,102.98
July 13, 1943	American (Leonard)	5	National (M. Cooper)	3	Philadelphia (A)	31,938	65,674.00†
July 11, 1944	National (Raffensberger)	7	American (Hughson)	1	Pittsburgh (N)	29,589	81,275.00†
July 9, 1946	American (Feller)	12	National (Passeau)	0	Boston (A)	34,906	89,071.00
July 8, 1947	American (Shea)	2	National (Sain)	1	Chicago (N)	41,123	105,314.90
July 13, 1948	American (Raschi)	5	National (Schmitz)	2	St. Louis (A)	34,009	93,447.00
July 12, 1949	American (Trucks)	11	National (Newcombe)	7	Brooklyn (N)	32,577	79,225.07
July 11, 1950	‡National (Blackwell)	4	American (Gray)	3	Chicago (A)	46,127	126,179.52
July 10, 1951	National (Maglie)	8	American (Lopat)	3	Detroit (A)	52,075	124,294.01
July 8, 1952	National (Rush)	3	American (Lemon)	2	Philadelphia (N)	32,785	108,762.00
July 14, 1953	National (Spahn)	5	American (Reynolds)	1	Cincinnati (N)	30,846	155,654.00
July 13, 1954	American (Stone)	11	National (Conley)	9	Cleveland (A)	68,751	259,204.00

* An additional $5,175 was received for radio rights. † Additional funds were received from other sources. ‡ Fourteen innings. Note: No game in 1945.

MOST VALUABLE PLAYERS

(Baseball Writers' Association selections)

American League

1931—Robert Grove, Philadelphia
1932—James Foxx, Philadelphia
1933—James Foxx, Philadelphia
1934—Gordon Cochrane, Detroit
1935—Henry Greenberg, Detroit
1936—Lou Gehrig, New York
1937—Charles Gehringer, Detroit
1938—James Foxx, Boston
1939—Joe DiMaggio, New York
1940—Henry Greenberg, Detroit
1941—Joe DiMaggio, New York
1942—Joe Gordon, New York
1943—Spurgeon Chandler, New York
1944—Harold Newhouser, Detroit
1945—Harold Newhouser, Detroit
1946—Ted Williams, Boston
1947—Joe DiMaggio, New York
1948—Lou Boudreau, Cleveland
1949—Ted Williams, Boston
1950—Phil Rizzuto, New York
1951—Lawrence Berra, New York
1952—Robert Shantz, Philadelphia
1953—Al Rosen, Cleveland
1954—Lawrence Berra, New York

National League

1931—Frank Frisch, St. Louis
1932—Charles Klein, Philadelphia
1933—Carl Hubbell, New York
1934—Jerome Dean, St. Louis
1935—Charles Hartnett, Chicago
1936—Carl Hubbell, New York
1937—Joseph Medwick, St. Louis
1938—Ernest Lombardi, Cincinnati
1939—William Walters, Cincinnati
1940—Frank McCormick, Cincinnati
1941—Adolph Camilli, Brooklyn
1942—Morton Cooper, St. Louis
1943—Stanley Musial, St. Louis
1944—Marty Marion, St. Louis
1945—Phil Cavarretta, Chicago
1946—Stanley Musial, St. Louis
1947—Robert Elliott, Boston
1948—Stanley Musial, St. Louis
1949—Jackie Robinson, Brooklyn
1950—Jim Konstanty, Philadelphia
1951—Roy Campanella, Brooklyn
1952—Henry Sauer, Chicago
1953—Roy Campanella, Brooklyn
1954—Willie Mays, New York

JUNIOR WORLD SERIES RECORD

International League (1) vs. American Association (AA)

No series in 1905, 1908 to 1916, inclusive; 1918, 1919 and 1935.

Year	Winner	Manager	Games won	Loser	Manager	Games won
1904	Buffalo (I)	George Stallings	2	St. Paul	Mike Kelley	1
1906*	Buffalo (I)	George Stallings	3	Columbus	Bill Clymer	2
1907	Toronto (I)	Joe Kelley	4	Columbus	Bill Clymer	1
1917	Indianapolis (AA)	Jack Hendricks	4	Toronto	Nap Lajoie	1
1920	Baltimore (I)	Jack Dunn	5	St. Paul	Mike Kelley	1
1921	Louisville (AA)	Joe McCarthy	5	Baltimore	Jack Dunn	3
1922	Baltimore (I)	Jack Dunn	5	St. Paul	Mike Kelly	2
1923	Kansas City (AA)	Wilbur Good	5	Baltimore	Jack Dunn	4
1924*	St. Paul (AA)	Nick Allen	5	Baltimore	Jack Dunn	4
1925	Baltimore (I)	Jack Dunn	5	Louisville	Joe McCarthy	3
1926	Toronto (I)	Dan Howley	5	Louisville	Bill Meyer	0
1927	Toledo (AA)	Casey Stengel	5	Buffalo	Bill Clymer	1
1928*	Indianapolis (AA)	Bruno Betzel	5	Rochester	Billy Southworth	1
1929	Kansas City (AA)	Dutch Zwilling	5	Rochester	Billy Southworth	4
1930	Rochester (I)	Billy Southworth	5	Louisville	Al Sothoron	3
1931	Rochester (I)	Billy Southworth	5	St. Paul	Al Leifield	3
1932	Newark (I)	Al Mamaux	4	Minneapolis	Donie Bush	2
1933	Columbus (AA)	Ray Blades	5	Buffalo	Ray Schalk	3
1934	Columbus (AA)	Ray Blades	5	Toronto	Ike Boone	4
1936	Milwaukee (AA)	Al Sothoron	4	Buffalo	Ray Schalk	1
1937	Newark (I)	Oscar Vitt	4	Columbus	Burt Shotton	3
1938	Kansas City (AA)	Bill Meyer	4	Newark	Johnny Neun	3
1939	Louisville (AA)	Bill Burwell	4	Rochester	Billy Southworth	3
1940	Newark (I)	Johnny Neun	4	Louisville	Bill Burwell	2
1941	Columbus (AA)	Burt Shotton	4	Montreal	Clyde Sukeforth	2
1942	Columbus (AA)	Eddie Dyer	4	Syracuse	Jewel Ens	1
1943	Columbus (AA)	Nick Cullop	4	Syracuse	Jewel Ens	1
1944	Baltimore (I)	Tommy Thomas	4	Louisville	Harry Leibold	2
1945	Louisville (AA)	Harry Leibold	4	Newark	Bill Meyer	2
1946	Montreal (I)	Clay Hopper	4	Louisville	Harry Leibold	2
1947	Milwaukee (AA)	Nick Cullop	4	Syracuse	Jewel Ens	3
1948	Montreal (I)	Clay Hopper	4	St. Paul	Walter E. Alston	1
1949	Indianapolis (AA)	Al Lopez	4	Montreal	Clay Hopper	2
1950	Columbus (AA)	Rollie Hemsley	4	Baltimore	Nick Cullop	1
1951	Milwaukee (AA)	Charlie Grimm	4	Montreal	Walter Alston	2
1952	Rochester (I)	Harry Walker	4	Kansas City	George Selkirk	3
1953	Montreal (I)	Walter Alston	4	Kansas City	Harry Craft	1
1954	Louisville (AA)	Pinky Higgins	4	Syracuse	Skeeter Newsome	2

* Played tie game.

Longest Game in the Majors

The 26-inning 1–1 tie game between Brooklyn and Boston of the National League, played at Braves Field, Boston, on May 1, 1920, still stands as the longest contest in major league history. Both pitchers, Joe Oeschger of the Braves and Leon Cadore of the Robins, as they were then called because they were managed by Wilbert Robinson, went the distance. George (Miracle Man) Stallings guided Boston. The game was called because of darkness.

OFFICIAL BOX SCORE

BROOKLYN (N)	ab	r	h	po	a	e
Olson, 2b	10	0	1	5	8	1
Neis, rf	10	0	1	9	0	0
Johnston, 3b	10	0	2	3	1	0
Wheat, lf	9	0	2	3	0	0
Myers, cf	2	0	1	2	0	0
Hood, cf	6	0	1	9	1	0
Konetchy, 1b	9	0	1	30	0	0
Ward, ss	10	0	0	5	3	1
Krueger, c	2	1	0	4	3	0
Elliott, c	7	0	0	7	3	0
Cadore, p	10	0	0	1	12	0
Total	85	1	9	78	31	2

BOSTON (N)	ab	r	h	po	a	e
Powell, cf	7	0	1	8	0	0
Pick, 2b	11	0	0	6	11	2
Mann, lf	10	0	2	6	0	0
Cruise, rf	9	1	1	4	0	0
Holke, 1b	10	0	2	42	1	0
Boeckel, 3b	11	0	3	1	7	0
Maranville, ss	10	0	3	1	9	0
O'Neil, c	2	0	0	4	1	0
a Christenbury	1	0	1	0	0	0
Gowdy, c	6	0	1	6	1	0
Oeschger, p	9	0	1	0	11	0
Total	86	1	15	78	41	2

a Batted for O'Neil in the ninth.

Brooklyn	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0—1
Boston	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0—1

(Called, darkness)

Runs batted in—Olson, Boeckel.

Two-base hits—Maranville, Oeschger. Three-base hits—Cruise. Stolen bases—Myers, Hood. Sacrifices—Hood, Powell, Cruise, Holke, O'Neil, Oeschger. Double plays—Olson and Konetchy; Oeschger, Holke and Gowdy. Left on bases—Boston 16, Brooklyn 11. Earned runs—Boston 1, Brooklyn 1. Struck out—by Cadore 7 (Pick, Mann, Cruise, Gowdy, Oeschger 3), Oeschger 7 (Olson, Neis 2, Johnston, Hood, Elliott, Cadore). Bases on balls—Off Cadore 5 (Powell 3, Mann, Cruise), Oeschger 4 (Wheat, Hood, Konetchy, Krueger). Wild pitch—Oeschger. Umpires—McCormick and Hart. Time—3:50. Attendance—2,000.

GOLF

IT MAY BE that golf originated in Holland—historians believe it did—but certainly Scotland fostered the game and is famous for it. In fact, in 1457 the Scottish Parliament, disturbed because football and golf had lured young Scots from the more soldierly exercise of archery, passed an ordinance that "futeball and golf be utterly cryit doun and nocht usit". James I and Charles I of the royal line of Stuarts were golf enthusiasts, whereby the game came to be known as "the royal and ancient game of golf".

The golf balls used in the early games were leather covered and stuffed with feathers. Clubs of all kinds were fashioned by hand to suit individual players. The great step in spreading the game came with the change from the feather ball to the gutta-percha ball about 1850, and in 1860 formal competition began with the establishment of an annual tournament for the British open championship. There are records of "golf clubs" in the United States as far back as colonial days but no proof of actual play before John Reid and some friends laid out six holes on the Reid lawn in Yonkers, N. Y., in 1888 and played there with the golf balls and clubs brought over from Scotland by Robert Lockhart. This group then formed the St. Andrews Golf Club of Yonkers, and golf was established in this country.

However, it remained a rather sedate and almost aristocratic pastime until a 20-year-old ex-caddy, Francis Ouimet of Boston, defeated two great British professionals, Harry Vardon and Ted Ray, in the United States Open championship at Brookline, Mass., in 1913. This feat put the game and Francis Ouimet on the front pages of the newspapers and stirred a wave of enthusiasm for the sport. The greatest feat so far in golf history was that of Robert Tyre Jones, Jr. of Atlanta, Ga., in winning the British Open, the British Amateur, the U. S. Open and the U. S. Amateur titles in one year, 1930.

Golf Statistics

Source: United States Golf Association.

UNITED STATES OPEN CHAMPIONS

Year	Winner	Score	Where played
1895	Horace Rawlins	173	Newport
1896	James Foulis	152	Shinnecock Hills
1897	Joe Lloyd	162	Chicago
1898*	Fred Herd	328	Myopia
1899	Willie Smith	315	Baltimore
1900	Harry Vardon	313	Chicago
1901	Willie Anderson (a)	331	Myopia
1902	L. Auchterlonie	307	Garden City
1903	Willie Anderson (a)	307	Baltusrol
1904	Willie Anderson	303	Glen View
1905	Willie Anderson	314	Myopia
1906	Alex Smith	295	Onwentsia
1907	Alex Ross	302	Philadelphia
1908	Fred McLeod (a)	322	Myopia
1909	George Sargent	290	Englewood
1910	Alex Smith (a)	298	Philadelphia
1911	J. J. McDermott (a)	307	Chicago
1912	J. J. McDermott	294	Buffalo
1913	Francis Ouimet (a,b)	304	Brookline
1914	Walter Hagen	290	Midlothian
1915	Jerome D. Travers (b)	297	Baltusrol
1916	Charles Evans, Jr.(b)	286	Minikahda
1917-18	No tournaments†		
1919	Walter Hagen (a)	301	Brae Burn
1920	Edward Ray	295	Inverness
1921	James M. Barnes	289	Columbia
1922	Gene Sarazen	288	Skokie
1923	R. T. Jones, Jr.(a,b)	296	Inwood
1924	Cyril Walker	297	Oakland Hills
1925	W. Macfarlane (a)	291	Worcester
1926	R. T. Jones, Jr.(b)	293	Scioto
1927	Tommy Armour (a)	301	Oakmont
1928	Johnny Farrell (a)	294	Olympia Fields
1929	R. T. Jones, Jr.(a,b)	294	Winged Foot
1930	R. T. Jones, Jr.(b)	287	Interlachen
1931	Billy Burke (a)	292	Inverness
1932	Gene Sarazen	286	Fresh Meadow
1933	John Goodman (b)	287	North Shore
1934	Olin Dutra	293	Merion
1935	Sam Parks, Jr.	299	Oakmont
1936	Tony Manero	282	Baltusrol
1937	Ralph Guldahl	281	Oakland Hills
1938	Ralph Guldahl	284	Cherry Hills
1939	Byron Nelson (a)	284	Philadelphia
1940	W. Lawson Little, Jr.(a)	287	Canterbury
1941	Craig Wood	284	Colonial
1942-45	No tournaments‡		
1946	Lloyd Mangrum (a)	284	Canterbury
1947	Lew Worsham (a)	282	St. Louis
1948	Ben Hogan	276	Riviera
1949	Cary Middlecoff	286	Medinah
1950	Ben Hogan (a)	287	Merion
1951	Ben Hogan	287	Oakland Hills
1952	Julius Boros	281	Northwood
1953	Ben Hogan	283	Oakmont
1954	Ed Furgol	284	Baltusrol

(a) Won play-off. (b) Amateur. * In 1898 competition was extended to 72 holes. † In 1917, Jock Hutchison, with a 292, won an Open Patriotic Tournament for the benefit of the American Red Cross at Whitemarsh Valley Country Club. ‡ In 1942, Ben Hogan, with a 271, won a Hale American National Open Tournament for the benefit of the Navy Relief Society and USO at Ridgemoor Country Club.

UNITED STATES AMATEUR CHAMPIONS

Year	Winner	Where played	Year	Winner	Where played
1895	Charles B. Macdonald	Newport	1924	R. T. Jones, Jr.	Merion
1896	H. J. Whigham	Shinnecock Hills	1925	R. T. Jones, Jr.	Oakmont
1897	H. J. Whigham	Chicago	1926	George Von Elm	Baltusrol
1898	Findlay S. Douglas	Morris County	1927	R. T. Jones, Jr.	Minikahda
1899	H. M. Harriman	Onwentsia	1928	R. T. Jones, Jr.	Brae Burn
1900	Walter J. Travis	Garden City	1929	H. R. Johnston	Del Monte
1901	Walter J. Travis	Atlantic City	1930	R. T. Jones, Jr.	Merion
1902	Louis N. James	Glen View	1931	Francis Ouimet	Beverly
1903	Walter J. Travis	Nassau	1932	C. R. Somerville	Baltimore
1904	H. Chandler Egan	Baltusrol	1933	G. T. Dunlap, Jr.	Kenwood
1905	H. Chandler Egan	Chicago	1934	W. Lawson Little, Jr.	Brookline
1906	Eben M. Byers	Englewood	1935	W. Lawson Little, Jr.	Cleveland
1907	Jerome D. Travers	Euclid	1936	John W. Fischer	Garden City
1908	Jerome D. Travers	Garden City	1937	John Goodman	Alderwood
1909	Robert A. Gardner	Chicago	1938	Willie Turnesa	Oakmont
1910	W. C. Fownes, Jr.	Brookline	1939	Marvin H. Ward	North Shore
1911	Harold H. Hilton	Apawamis	1940	R. D. Chapman	Winged Foot
1912	Jerome D. Travers	Chicago	1941	Marvin H. Ward	Omaha
1913	Jerome D. Travers	Garden City	1946	Ted Bishop	Baltusrol
1914	Francis Ouimet	Ekwanok	1947	Robert Riegel	Del Monte
1915	Robert A. Gardner	Detroit	1948	Willie Turnesa	Memphis
1916	Charles Evans, Jr.	Merion	1949	Charles Coe	Oak Hill
1919	S. D. Herron	Oakmont	1950	Sam Urzetta	Minneapolis
1920	Charles Evans, Jr.	Engineers'	1951	Billy Maxwell	Saucon Valley
1921	Jesse P. Guilford	St. Louis	1952	Jack Westland	Seattle
1922	Jess W. Sweetser	Brookline	1953	Gene Littler	Okla. City
1923	Max R. Marston	Flossmoor	1954	Arnold Palmer	Detroit

UNITED STATES WOMEN AMATEUR CHAMPIONS

1895	Mrs. C. S. Brown	Meadow Brook	1924	Mrs. D. C. Hurd	Rhode Island
1896	Beatrix Hoyt	Morris County	1925	Glenna Collett	St. Louis
1897	Beatrix Hoyt	Essex (Mass.)	1926	Mrs. G. H. Stetson	Merion
1898	Beatrix Hoyt	Ardsley	1927	Mrs. M. B. Horn	Cherry Valley
1899	Ruth Underhill	Philadelphia	1928	Glenna Collett	Hot Springs (Va.)
1900	Frances C. Griscom	Shinnecock Hills	1929	Glenna Collett	Oakland Hills
1901	Genevieve Hecker	Baltusrol	1930	Glenna Collett	Los Angeles
1902	Genevieve Hecker	Brookline	1931	Helen Hicks	Buffalo
1903	Bessie Anthony	Chicago	1932	Virginia Van Wie	Salem
1904	G. M. Bishop	Merion	1933	Virginia Van Wie	Exmoor
1905	Pauline Mackay	Morris County	1934	Virginia Van Wie	Whitemarsh Valley
1906	Harriot S. Curtis	Brae Burn	1935	Mrs. E. H. Vare, Jr.	Interlachen
1907	Margaret Curtis	Midlothian	1936	Pamela Barton	Canoe Brook
1908	K. C. Harley	Chevy Chase	1937	Mrs. J. A. Page, Jr.	Memphis
1909	D. I. Campbell	Merion	1938	Patty Berg	Westmoreland
1910	D. I. Campbell	Homewood	1939	Betty Jameson	Wee Burn
1911	Margaret Curtis	Baltusrol	1940	Betty Jameson	Del Monte
1912	Margaret Curtis	Essex (Mass.)	1941	Mrs. Frank Newell	Brookline
1913	Gladys Ravenscroft	Wilmington	1946	Mrs. M. D. Zaharias	Tulsa
1914	Mrs. H. A. Jackson	Nassau	1947	Louise Suggs	Franklin Hills
1915	Mrs. C. H. Vanderbeck	Onwentsia	1948	Grace Lenczyk	Pebble Beach
1916	Alexa Stirling	Belmont Springs	1949	Mrs. D. G. Porter	Merion
1919	Alexa Stirling	Shawnee	1950	Beverly Hanson	East Lake
1920	Alexa Stirling	Mayfield	1951	Dorothy Kirby	Town and Country
1921	Marion Hollins	Hollywood (N. J.)	1952	Mrs. Jacqueline Pung	Waverley
1922	Glenna Collett	Greenbrier	1953	Mary Lena Faulk	Rhode Island
1923	Edith Cummings	Westchester-Biltmore	1954	Barbara Romack	Sewickley

U. S. PUBLIC LINKS CHAMPIONS

1922—Edmund R. Held
1923—Richard J. Walsh
1924—Joseph Coble
1925—R. J. McAuliffe
1926—Lester Bolstad
1927-29—C. F. Kauffmann
1930—Robert E. Wingate
1931—Charles Ferrera
1932—R. L. Miller
1933—Charles Ferrera
1934—David A. Mitchell
1935—Frank Strafaci
1936—B. Patrick Abbott
1937—Bruce N. McCormick
1938—Al Leach
1939—Andrew Szwedko
1940—Robert C. Clark
1941—William M. Welch
1942-45—No competition
1946—Smiley Quick
1947—Wilfred Crossley
1948—Michael R. Ferentz
1949—Ken Towns
1950—Stan Bielat
1951—Dave Stanley
1952—Omer L. Bogan
1953—Ted Richards
1954—Gene Andrews

UNITED STATES P. G. A. CHAMPIONS

Year	Winner	Where played
1916	Jim Barnes	Siwanoy, N. Y.
1919	Jim Barnes	Engineers, L. I.
1920	Jock Hutchison	Flossmoor, Ill.
1921	Walter Hagen	Inwood, L. I.
1922	Gene Sarazen	Oakmont, Pa.
1923	Gene Sarazen	Pelham, N. Y.
1924	Walter Hagen	French Lick, Ind.
1925	Walter Hagen	Olympia Fields, Ill.
1926	Walter Hagen	Salisbury, L. I.
1927	Walter Hagen	Dallas, Texas
1928	Leo Diegel	Baltimore, Md.
1929	Leo Diegel	Hillcrest, Calif.
1930	Tommy Armour	Fresh Meadow, L. I.
1931	Tom Creavy	Wannamoisett, R. I.
1932	Olin Dutra	Keller Course, Minn.
1933	Gene Sarazen	Blue Mound, Wis.
1934	Paul Runyan	Park Club, Buffalo
1935	Johnny Revolta	Twin Hills, Okla.
1936	Denny Shute	Pinehurst, N. C.
1937	Denny Shute	Pittsburgh, Pa.
1938	Paul Runyan	Shawnee-on-Delaware, Pa.
1939	Henry Picard	Pomonok, L. I.
1940	Byron Nelson	Hershey, Pa.
1941	Victor Ghezzi	Denver, Colo.
1942	Sam Snead	Atlantic City, N. J.
1944	Bob Hamilton	Spokane, Wash.
1945	Byron Nelson	Dayton, Ohio
1946	Ben Hogan	Portland, Oreg.
1947	Jim Ferrier	Plum Hollow, Mich.
1948	Ben Hogan	St. Louis, Mo.
1949	Sam Snead	Richmond, Va.
1950	Chandler Harper	Columbus, Ohio
1951	Sam Snead	Oakmont, Pa.
1952	Jim Turnesa	Louisville, Ky.
1953	Walter Burkemo	Birmingham, Mich.
1954	Chick Harbert	Keller Course

BRITISH OPEN CHAMPIONS

Year	Winner	Score	Where played
1860	W. Park	174	Prestwick
1861	Tom Morris, Sr.	163	Prestwick
1862	Tom Morris, Sr.	163	Prestwick
1863	W. Park	168	Prestwick
1864	Tom Morris, Sr.	167	Prestwick
1865	A. L. Strath	162	Prestwick
1866	W. Park	169	Prestwick
1867	Tom Morris, Sr.	170	Prestwick
1868	Tom Morris, Jr.	170	Prestwick
1869	Tom Morris, Jr.	154	Prestwick
1870	Tom Morris, Jr.	149	Prestwick
1872	Tom Morris, Jr.	166	Prestwick
1873	Tom Kidd	179	St. Andrews
1874	Mungo Park	159	Musselburgh
1875	Willie Park	166	Prestwick
1876	Bob Martin	176	St. Andrews
1877	Jamie Anderson	160	Musselburgh
1878	Jamie Anderson	157	Prestwick
1879	Jamie Anderson	170	St. Andrews
1880	Bob Ferguson	162	Musselburgh
1881	Bob Ferguson	170	Prestwick
1882	Bob Ferguson	171	St. Andrews
1883	W. L. Fernie (a)	159	Musselburgh
1884	Jack Simpson	160	Prestwick
1885	Bob Martin	171	St. Andrews
1886	D. L. Brown	157	Musselburgh
1887	W. Park, Jr.	161	Prestwick
1888	Jack Burns	171	St. Andrews
1889	W. Park, Jr.(a)	155	Musselburgh
1890	John Ball	164	Prestwick
1891	Hugh Kirkaldy	166	St. Andrews
1892*	H. H. Hilton	305	Muirfield
1893	W. Auchterlonie	322	Prestwick
1894	J. H. Taylor	326	Sandwich
1895	J. H. Taylor	322	St. Andrews
1896	Harry Vardon (a)	316	Muirfield
1897	H. H. Hilton	314	Hoylake
1898	Harry Vardon	307	Prestwick
1899	Harry Vardon	310	Sandwich
1900	J. H. Taylor	309	St. Andrews
1901	James Braid	309	Muirfield
1902	Alex Herd	307	Hoylake
1903	Harry Vardon	300	Prestwick
1904	Jack White	296	Sandwich
1905	James Braid	318	St. Andrews
1906	James Braid	300	Muirfield
1907	Arnaud Massy	312	Hoylake
1908	James Braid	291	Prestwick
1909	J. H. Taylor	295	Deal
1910	James Braid	299	St. Andrews
1911	Harry Vardon (a)	303	Sandwich
1912	E. Ray	295	Muirfield
1913	J. H. Taylor	304	Hoylake
1914	Harry Vardon	306	Prestwick
1920	George Duncan	303	Deal
1921	Jock Hutchison (a)	296	St. Andrews
1922	Walter Hagen	300	Sandwich
1923	A. G. Havers	295	Troon
1924	Walter Hagen	301	Hoylake
1925	Jim Barnes	300	Prestwick
1926	R. T. Jones, Jr.	291	Royal Lytham, St. Annes
1927	R. T. Jones, Jr.	285	St. Andrews
1928	Walter Hagen	292	Sandwich
1929	Walter Hagen	292	Muirfield
1930	R. T. Jones, Jr.	291	Hoylake
1931	T. D. Armour	296	Carnoustie
1932	G. Sarazen	283	Princes, Sandwich
1933	D. Shute (a)	292	St. Andrews
1934	T. H. Cotton	283	Sandwich
1935	A. Perry	283	Muirfield
1936	A. H. Padgham	287	Royal Liverpool
1937	T. H. Cotton	290	Carnoustie
1938	R. A. Whitcombe	295	Sandwich
1939	R. Burton	290	St. Andrews
1946	Sam Snead	290	St. Andrews
1947	Fred Daly	293	Hoylake
1948	Henry Cotton	284	Gullane, Muirfield
1949	Bobby Locke (a)	283	Sandwich, Deal
1950	Bobby Locke	279	Troon, Lochgreen
1951	Max Faulkner	285	Portrush
1952	Bobby Locke	287	Royal Lytham, St. Annes
1953	Ben Hogan	282	Carnoustie
1954	Peter Thomson	283	Southport

(a) Won play-off. * In 1892 competition was extended to 72 holes.

WOMEN'S NATIONAL OPEN CHAMPIONS

1946—Patty Berg (match play)	—
1947—Betty Jameson	295
1948—Mrs. Mildred D. Zaharias	300
1949—Louise Suggs	291
1950—Mrs. Mildred D. Zaharias	291
1951—Betsy Rawls	293
1952—Louise Suggs	284
1953—Betsy Rawls	302
1954—Mrs. Mildred D. Zaharias	291

BRITISH AMATEUR CHAMPIONS

Year	Winner	Where played
1885	A. F. MacFie	Hoylake
1886	H. G. Hutchinson	St. Andrews
1887	H. G. Hutchinson	Hoylake
1888	John Ball	Prestwick
1889	J. E. Laidlay	St. Andrews
1890	John Ball	Hoylake
1891	J. E. Laidlay	St. Andrews
1892	John Ball	Sandwich
1893	Peter L. Anderson	Prestwick
1894	John Ball	Hoylake
1895	L. M. B. Melville	St. Andrews
1896	F. G. Tait	Sandwich
1897	A. J. T. Allan	Muirfield
1898	F. G. Tait	Hoylake
1899	John Ball	Prestwick
1900	H. H. Hilton	Sandwich
1901	H. H. Hilton	St. Andrews
1902	C. Hutchings	Hoylake
1903	R. Maxwell	Muirfield
1904	W. J. Travis	Sandwich
1905	A. G. Barry	Prestwick
1906	James Robb	Hoylake
1907	John Ball	St. Andrews
1908	E. A. Lassen	Sandwich
1909	R. Maxwell	Muirfield
1910	John Ball	Hoylake
1911	H. H. Hilton	Prestwick
1912	John Ball	Westward Ho
1913	H. H. Hilton	St. Andrews
1914	J. L. C. Jenkins	Sandwich
1915-19	No tournaments	
1920	Cyril J. H. Tolley	Muirfield
1921	W. I. Hunter	Hoylake
1922	E. W. E. Holderness	Prestwick
1923	R. H. Wethered	Deal
1924	E. W. E. Holderness	St. Andrews
1925	Robert Harris	Westward Ho
1926	Jess W. Sweetser	Muirfield
1927	Dr. W. Tweddell	Hoylake
1928	T. P. Perkins	Prestwick
1929	C. J. H. Tolley	Sandwich
1930	R. T. Jones, Jr.	St. Andrews
1931	E. Martin Smith	Westward Ho
1932	J. De Forest	Muirfield
1933	Hon. M. Scott	Hoylake
1934	W. Lawson Little, Jr.	Prestwick
1935	W. Lawson Little, Jr.	Royal Lytham, St. Annes
1936	H. Thomson	St. Andrews
1937	R. Sweeny, Jr.	Sandwich
1938	C. R. Yates	Troon
1939	A. Kyle	Hoylake
1946	J. Bruen	Birkdale
1947	Willie Turnesa	Carnoustie
1948	Frank Stranahan	Sandwich
1949	Max McCready	Portmarnock
1950	Frank Stranahan	St. Andrews
1951	Richard D. Chapman	Porthcawl
1952	Harvie Ward	Prestwick
1953	Joe Carr	Hoylake
1954	Doug Bachli	Gullane

Intercollegiate Golf Association of America Champions

Year	Individual	Team
1897	Louis P. Bayard, Jr., Princeton	Yale
1898*	John Reid, Jr., Yale	Harvard
	James F. Curtis, Harvard	Yale
1899	Percy Pyne, 2d, Princeton	Harvard
1900	No tournament	
1901	H. Lindsley, Harvard	Harvard
1902*	Charles Hitchcock, Jr., Yale	Yale
	H. Chandler Egan, Harvard	Harvard
1903	F. O. Reinhart, Princeton	Harvard
1904	A. L. White, Harvard	Harvard
1905	Robert Abbott, Yale	Yale
1906	W. E. Clow, Jr., Yale	Yale
1907	Ellis Knowles, Yale	Yale
1908	H. H. Wilder, Harvard	Yale
1909	Albert Seckel, Princeton	Yale
1910	Robert E. Hunter, Yale	Yale
1911	George C. Stanley, Yale	Yale
1912	F. C. Davison, Harvard	Yale
1913	Nathaniel Wheeler, Yale	Yale
1914	Edward P. Allis, 3d, Harvard	Princeton
1915	Francis R. Blossom, Yale	Yale
1916	J. W. Hubbell Harvard	Princeton
1917-18	No tournaments	
1919	A. L. Walker, Jr., Columbia	Princeton
1920	Jess W. Sweetser, Yale	Princeton
1921	J. Simpson Dean, Princeton	Dartmouth
1922	Pollack Boyd, Dartmouth	Princeton
1923	Dexter Cummings, Yale	Princeton
1924	Dexter Cummings, Yale	Yale
1925	G. Fred Lamprecht, Tulane	Yale
1926	G. Fred Lamprecht, Tulane	Yale
1927	Watts Gunn, Georgia Tech	Princeton
1928	M. J. McCarthy, Jr., Georgetown	Princeton
1929	Tom Aycock, Yale	Princeton
1930	George T. Dunlap, Jr., Princeton	Princeton
1931	George T. Dunlap, Jr., Princeton	Yale
1932	John W. Fischer, Jr., Michigan	Yale
1933	Walter Emery, Oklahoma	Yale
1934	Charles R. Yates, Georgia Tech	Michigan
1935	Ed White, U. of Texas	Michigan
1936	Charles Kocsis, Michigan	Yale
1937	Fred Haas, Jr., L. S. U.	Princeton
1938	John P. Burke, Georgetown	Stanford

* Two tournaments, in spring and fall.

National Collegiate Champions

Year	Individual	Team
1939	Vincent D'Antoni, Tulane	Stanford
1940	F. Dixon Brooke, Virginia	Princeton* / L. S. U.*
1941	Earl Stewart, L. S. U.	Stanford
1942	Frank Tatum, Jr., Stanford	Stanford* / L. S. U.*
1943	Wallace Ulrich, Carleton	Yale
1944	Louis Lick, Minnesota	Notre Dame
1945	John Lorms, Ohio State	Ohio State
1946	George Hamer, Georgia	Stanford
1947	Dave Barclay, Michigan	L. S. U.
1948	Bobby Harris, San Jose St.	San Jose St.
1949	Harvie Ward, North Carolina	No. Tex. St.
1950	Fred Wampler, Purdue	No. Tex. St.
1951	Tom Nieporte, Ohio State	No. Tex. St.
1952	Jim Vickers, Oklahoma	No. Tex. St.
1953	Earl Moeller, Okla. A. & M.	Stanford
1954	Hillman Robbins, Jr., Memphis St.	S. M. U.

* Tie.

Walker Cup Record

MEN (AMATEUR)

Year		Where played
*1921	United States 9, Great Britain 3...	Hoylake
1922	United States 8, Great Britain 4...	Southampton
1923	United States 6, Great Britain 5... One match halved	St. Andrews, Scotland
1924	United States 9, Great Britain 3...	Garden City G. C.
1926	United States 6, Great Britain 5... One match halved	St. Andrews, Scotland
1928	United States 11, Great Britain 1..	Wheaton, Ill.
1930	United States 10, Great Britain 2..	Royal St. George's
1932	United States 8, Great Britain 1... Three matches halved	The Country Club, Brookline, Mass.
1934	United States 9, Great Britain 2... One match halved	St. Andrews, Scotland
1936	United States 9, Great Britain 0... Three matches halved	Pine Valley G. C., Clementon, N. J.
1938	Great Britain 7, United States 4... One match halved	St. Andrews, Scotland
1947	United States 8, Great Britain 4...	St. Andrews
1949	United States 10, Great Britain 2..	Winged Foot
1951	United States 6, Great Britain 3...	Southport
1953	United States 9, Great Britain 3...	Kittansett

* Informal match.

Curtis Cup Record

WOMEN

Year		Where played
*1930	Great Britain 8, United States 6.....	Sunningdale
1932	United States 5½, Great Britain 3½..	Wentworth, Eng.
1934	United States 6½, Great Britain 2½..	Chevy Chase
1936	United States 4½, Great Britain 4½..	Gleneagles
1938	United States 5½, Great Britain 3½..	Essex C. C.
1948	United States 6½, Great Britain 2½..	Birkdale
1950	United States 7½, Great Britain 1½..	Buffalo
1952	Great Britain 5, United States 4.....	Muirfield
1954	United States 6, Great Britain 3.....	Merion

* Informal match.

U. S. Bobsledding Records

The records for the Mt. Van Hoevenberg slide at Lake Placid, N. Y., the only bob-run in America, follow:

OLYMPIC BOBRUN (5,178 Feet)

(Times in minutes and seconds)

Two-man (single heat)—Stan Benham-James Bickford, Sno Birds of Lake Placid Club (Jan. 30, 1955)	1:14.20
Two-man (4 heats)—Stan Benham-James Bickford, Sno Birds of Lake Placid Club (Jan. 30, 1955)	5:01.47
Four-man (single heat)—Art Tyler, driver; William Dodge; Thomas Butler; Edgar Seymour, brake, Rochester B. C. (Feb. 20, 1955)	1:10.34
Four-man (4 heats)—Art Tyler, driver; William Dodge; Thomas Butler; Edgar Seymour, brake, Rochester B. C. (Feb. 19-20, 1955)	4:44.02

HALF-MILE COURSE (2,323 Feet)

Two-man (single heat)—James Bickford-Hubert Miller, Saranac Lake B. C. (Jan. 9, 1955)	0:39.15
Two-man (4 heats)—James Bickford-Pat Buckley, Saranac Lake B. C. (Jan. 26, 1946)	2:40.61
Four-man (single heat)—James Bickford, driver; Pat Buckley; Lucien Miron; William Dupree, brake, Saranac Lake B. C. (Jan. 27, 1946)	0:37.08
Four-man (4 heats)—James Bickford, driver; Pat Buckley; Lucien Miron; William Dupree, brake, Saranac Lake B. C. (Jan. 27, 1946)	2:29.07

Ryder Cup Record

MEN (PROFESSIONAL)

Year		Where played
*1926	Great Britain 13½, United States 1½	Wentworth
1927	United States 9½, Great Britain 2½..	Worcester C. C.
1929	Great Britain 7, United States 5.....	Moortown, Eng.
1931	United States 9, Great Britain 3.....	Scioto C. C.
1933	Great Britain 6½, United States 5½..	Southport, Eng.
1935	United States 9, Great Britain 3.....	Ridgewood C. C.
1937	United States 8, Great Britain 4.....	Southport, Eng.
1947	United States 11, Great Britain 1.....	Portland, Oreg.
1949	United States 7, Great Britain 5.....	Ganton, Eng.
1951	United States 9½, Great Britain 2½..	Pinehurst, N. C.
1953	United States 6½, Great Britain 5½..	Wentworth

* Informal match.

SOFTBALL

Source: Amateur Softball Association.

World Amateur Champions

1933—J. L. Gillis, Chicago, Ill.
1934—Ke-Nash-A's, Kenosha, Wis.
1935—Crimson Coaches, Toledo, Ohio
1936—Kodak Park, Rochester, N. Y.
1937—Briggs Mfg. Co., Detroit, Mich.
1938—Pohlers, Cincinnati, Ohio
1939—Carr's, Covington, Ky.
1940—Kodak Park, Rochester, N. Y.
1941—Bendix Brakes, South Bend, Ind.
1942—Deep Rock Oilers, Tulsa, Okla.
1943—Hammer Field, Fresno, Calif.
1944—Hammer Field, Fresno, Calif.
1945—Zollners, Fort Wayne, Ind.
1946—Zollners, Fort Wayne, Ind.
1947—Zollners, Fort Wayne, Ind.
1948—Briggs Beautyware, Detroit, Mich.
1949—Tip Top Tailors, Toronto, Ontario
1950—Clearwater (Fla.) Bombers
1951—Dow Chemical Co., Midland, Mich.
1952—Briggs Beautyware, Detroit, Mich.
1953—Briggs Beautyware, Detroit, Mich.
1954—Clearwater (Fla.) Bombers

WOMEN

1933—Great Northerns, Chicago, Ill.
1934—Hart Motors, Chicago, Ill.
1935—Bloomer Girls, Cleveland, Ohio
1936—National Mfg. Co., Cleveland, Ohio
1937—National Mfg. Co., Cleveland, Ohio
1938—J. J. Kreig's, Alameda, Calif.
1939—J. J. Kreig's, Alameda, Calif.
1940—Arizona Ramblers, Phoenix
1941—Higgins Midgets, Tulsa, Okla.
1942—Jax Maids, New Orleans, La.
1943—Jax Maids, New Orleans, La.
1944—Lind & Pomeroy, Portland, Ore.
1945—Jax Maids, New Orleans, La.
1946—Jax Maids, New Orleans, La.
1947—Jax Maids, New Orleans, La.
1948—Arizona Ramblers, Phoenix
1949—Arizona Ramblers, Phoenix
1950—Orange (Calif.) Lionettes
1951—Orange (Calif.) Lionettes
1952—Orange (Calif.) Lionettes
1953—Betsy Ross Rockets, Fresno, Calif.
1954—Leach Motors Rockets, Fresno, Calif.

LAWN TENNIS

LAWN TENNIS is a comparatively modern modification of the ancient game of court tennis. Major Walter Clopton Wingfield thought that something like court tennis might be played outdoors on lawns and in December, 1873, at Nantclwyd, Wales, he introduced his new game under the name of *Sphairistike* at a lawn party. The game was a success and spread rapidly, but the name was a total failure and almost immediately disappeared when all the players and spectators began to refer to the new game as "lawn tennis." In the early part of 1874 a young lady named Mary Ewing Outerbridge returned from Bermuda to New York, bringing with her the implements and necessary equipment of the new game that she had obtained from a British Army supply store in Bermuda. Miss Outerbridge and friends played the first game of lawn tennis in the United States on the grounds of the Staten Island Cricket and Baseball Club in the spring of 1874.

For a few years the new game went along in haphazard fashion under varying rules. Tennis balls were of no standard size or texture. The nets were set at different heights up to 5 feet on the side and 4 feet in the middle. Some courts were marked out in hour-glass shape, narrow in the middle and wide at both ends. But about 1880 standard measurements for the court and standard equipment within definite limits became the rule. In 1881 the United States Lawn Tennis Association was formed and conducted the first national championship at Newport, R. I. The international matches for the Davis Cup began with a series between the British and United States players on the courts of the Longwood Cricket Club, Chestnut Hill, Mass., in 1900, with the home players winning.

Lawn Tennis Statistics

Source: The *Official U.S.L.T.A. Yearbook and Tennis Guide.*

DAVIS CUP CHALLENGE ROUND RESULTS

MEN

No matches in 1901, 1910, 1915–18, and 1940–45.

Year	Result	Where played
1900	United States 5, British Isles 0	Chestnut Hill
1902	United States 3, British Isles 2	Brooklyn
1903	British Isles 4, United States 1	Chestnut Hill
1904	British Isles 5, Belgium 0	Wimbledon
1905	British Isles 5, United States 0	Wimbledon
1906	British Isles 5, United States 0	Wimbledon
1907	Australasia 3, British Isles 2	Wimbledon
1908	Australasia 3, United States 2	Melbourne
1909	Australasia 5, United States 0	Sydney
1911	Australasia 5, United States 0	Christchurch
1912	British Isles 3, Australasia 2	Melbourne
1913	United States 3, British Isles 2	Wimbledon
1914	Australasia 3, United States 2	Forest Hills
1919	Australasia 4, British Isles 1	Sydney
1920	United States 5, Australasia 0	Auckland
1921	United States 5, Japan 0	Forest Hills
1922	United States 4, Australasia 1	Forest Hills
1923	United States 4, Australasia 1	Forest Hills
1924	United States 5, Australasia 0	Philadelphia
1925	United States 5, France 0	Philadelphia
1926	United States 4, France 1	Philadelphia
1927	France 3, United States 2	Philadelphia
1928	France 4, United States 1	Paris
1929	France 3, United States 2	Paris
1930	France 4, United States 1	Paris
1931	France 3, Great Britain 2	Paris
1932	France 3, United States 2	Paris
1933	Great Britain 3, France 2	Paris
1934	Great Britain 4, United States 1	Wimbledon
1935	Great Britain 5, United States 0	Wimbledon
1936	Great Britain 3, Australia 2	Wimbledon
1937	United States 4, Great Britain 1	Wimbledon
1938	United States 3, Australia 2	Philadelphia
1939	Australia 3, United States 2	Haverford
1946	United States 5, Australia 0	Melbourne
1947	United States 4, Australia 1	Forest Hills
1948	United States 5, Australia 0	Forest Hills
1949	United States 4, Australia 1	Forest Hills
1950	Australia 4, United States 1	Forest Hills
1951	Australia 3, United States 2	Sydney
1952	Australia 4, United States 1	Adelaide
1953	Australia 3, United States 2	Melbourne
1954	United States 3, Australia 2	Sydney

WIGHTMAN CUP RECORD

WOMEN

Year	Result	Where played
1923	United States 7, England 0	Forest Hills
1924	England 6, United States 1	Wimbledon
1925	England 4, United States 3	Forest Hills
1926	United States 4, England 3	Wimbledon
1927	United States 5, England 2	Forest Hills
1928	England 4, United States 3	Wimbledon
1929	United States 4, England 3	Forest Hills
1930	England 4, United States 3	Wimbledon
1931	United States 5, England 2	Forest Hills
1932	United States 4, England 3	Wimbledon
1933	United States 4, England 3	Forest Hills
1934	United States 5, England 2	Wimbledon
1935	United States 4, England 3	Forest Hills
1936	United States 4, England 3	Wimbledon
1937	United States 6, England 1	Forest Hills
1938	United States 5, England 2	Wimbledon
1939	United States 5, England 2	Forest Hills
1946	United States 7, England 0	Wimbledon
1947	United States 7, England 0	Forest Hills
1948	United States 6, England 1	Wimbledon
1949	United States 7, England 0	Haverford
1950	United States 7, England 0	Wimbledon
1951	United States 6, England 1	Longwood
1952	United States 7, England 0	Wimbledon
1953	United States 7, England 0	Rye, N. Y.
1954	United States 6, England 0	Wimbledon

UNITED STATES CHAMPIONS

Men's Singles

1881 Richard D. Sears
1882 Richard D. Sears
1883 Richard D. Sears
1884 Richard D. Sears
1885 Richard D. Sears
1886 Richard D. Sears
1887 Richard D. Sears
1888 Henry W. Slocum, Jr.
1889 Henry W. Slocum, Jr.
1890 Oliver S. Campbell
1891 Oliver S. Campbell
1892 Oliver S. Campbell
1893 Robert D. Wrenn
1894 Robert D. Wrenn
1895 Fred H. Hovey
1896 Robert D. Wrenn
1897 Robert D. Wrenn
1898 Malcolm D. Whitman
1899 Malcolm D. Whitman
1900 Malcolm D. Whitman
1901 William A. Larned
1902 William A. Larned
1903 Hugh L. Doherty
1904 Holcombe Ward
1905 Beals C. Wright
1906 William J. Clothier
1907 William A. Larned
1908 William A. Larned
1909 William A. Larned
1910 William A. Larned
1911 William A. Larned
1912 Maurice E. McLoughlin*
1913 Maurice E. McLoughlin
1914 R. N. Williams, II
1915 William Johnston
1916 R. N. Williams, II
1917 R. Lindley Murray†
1918 R. Lindley Murray
1919 William Johnston
1920 William T. Tilden, II
1921 William T. Tilden, II
1922 William T. Tilden, II
1923 William T. Tilden, II
1924 William T. Tilden, II
1925 William T. Tilden, II
1926 Jean Rene Lacoste
1927 Jean Rene Lacoste
1928 Henri Cochet
1929 William T. Tilden, II
1930 John H. Doeg
1931 H. Ellsworth Vines, Jr.
1932 H. Ellsworth Vines, Jr.
1933 Fred J. Perry
1934 Fred J. Perry
1935 Wilmer L. Allison
1936 Fred J. Perry
1937 J. Donald Budge
1938 J. Donald Budge
1939 Robert L. Riggs
1940 Donald McNeill
1941 Robert L. Riggs
1942 Frederick R. Schroeder, Jr.
1943 Lt. (jg) Joseph R. Hunt
1944 Sgt. Frank A. Parker
1945 Sgt. Frank A. Parker
1946 John A. Kramer
1947 John A. Kramer
1948 Richard Gonzales
1949 Richard Gonzales
1950 Arthur Larsen
1951 Frank Sedgman
1952 Frank Sedgman
1953 Tony Trabert
1954 E. Victor Seixas, Jr.

* Challenge round abandoned. † Patriotic tourney.

Men's Doubles

1881 C. M Clark—F. W. Taylor
1882 R. D. Sears—James Dwight
1883 R. D. Sears—James Dwight
1884 R. D. Sears—James Dwight
1885 R. D. Sears—J. S. Clark
1886 R. D. Sears—James Dwight
1887 R. D. Sears—James Dwight
1888 O. S. Campbell—V. G. Hall
1889 H. W. Slocum, Jr.—H. A. Taylor
1890 V. G. Hall—Clarence Hobart
1891 O. S. Campbell—R. P. Huntington, Jr.
1892 O. S. Campbell—R. P. Huntington, Jr.
1893 Clarence Hobart—F. H. Hovey
1894 Clarence Hobart—F. H. Hovey
1895 M. G. Chace—R. D. Wrenn
1896 C. B. Neel—S. R. Neel
1897 L. E. Ware—G. P. Sheldon, Jr.
1898 L. E. Ware—G. P. Sheldon, Jr.
1899 Holcombe Ward—D. F. Davis
1900 Holcombe Ward—D. F. Davis
1901 Holcombe Ward—D. F. Davis
1902 R. F. Doherty—H. L. Doherty
1903 R. F. Doherty—H. L. Doherty
1904 Holcombe Ward—B. C. Wright
1905 Holcombe Ward—B C. Wright
1906 Holcombe Ward—B. C. Wright
1907 H. H. Hackett—F. B. Alexander
1908 H. H. Hackett—F. B. Alexander
1909 H. H. Hackett—F. B. Alexander
1910 H. H. Hackett—F. B. Alexander
1911 R. D. Little—G. F. Touchard
1912 M. E. McLoughlin—T. C. Bundy
1913 M. E. McLoughlin—T. C. Bundy
1914 M. E. McLoughlin—T. C. Bundy
1915 William Johnston—C. J. Griffin
1916 William Johnston—C. J. Griffin
1917 F. B. Alexander—H. A. Throckmorton*
1918 W. T. Tilden, II—Vincent Richards†
1919 N. E. Brookes—G L. Patterson
1920 William Johnston—C. J. Griffin
1921 W. T. Tilden, II—Vincent Richards
1922 W. T. Tilden, II—Vincent Richards
1923 W. T. Tilden, II—B. I. C. Norton
1924 H. O. Kinsey—R. G. Kinsey
1925 Vincent Richards—R. N. Williams, II
1926 Vincent Richards—R. N. Williams, II
1927 W. T. Tilden, II—F. T. Hunter
1928 G. M. Lott, Jr.—J. F. Hennessey
1929 G. M. Lott, Jr.—J. H. Doeg
1930 G. M. Lott, Jr.—J. H. Doeg
1931 W. L. Allison—John Van Ryn
1932 H. E. Vines, Jr.—Keith Gledhill
1933 G. M. Lott, Jr.—L. R. Stoefen
1934 G. M. Lott, Jr.—L. R. Stoefen
1935 W. L. Allison—John Van Ryn
1936 J. D. Budge—C. G. Mako
1937 Baron G. von Cramm—Henner Henkel
1938 J. D. Budge—C. G. Mako
1939 A. K. Quist—J. E. Bromwich
1940 J. A. Kramer—F. R. Schroeder, Jr.
1941 J. A. Kramer—F. R. Schroeder, Jr.
1942 Lt. (jg) Gardnar Mulloy—W. F. Talbert
1943 J. A. Kramer—Cpl. F. A. Parker
1944 Lt. Don McNeill—a/c Robert Falkenburg
1945 Lt. (sg) Gardnar Mulloy—W. F. Talbert
1946 Gardnar Mulloy—W. F. Talbert
1947 J. A. Kramer—F. R. Schroeder, Jr.
1948 Gardnar Mulloy—W. F. Talbert
1949 John Bromwich—William Sidwell
1950 John Bromwich—Frank Sedgman
1951 Frank Sedgman—Kenneth McGregor
1952 E. Victor Seixas, Jr.—Mervyn Rose
1953 Mervyn Rose—Rex Hartwig
1954 E. Victor Seixas, Jr.—Tony Trabert

* Patriotic tournament. † Challenge round abandoned.

Dompierre takes Dogsled Derby

Narcisse Dompierre of Quebec City captured the 66-mile international dogsled derby at Ottawa in 1955. He was timed in 5 hours 33 minutes 58 seconds, a record for the event. The runner-up was Dr. Charles Belford of Deerfield, Mass.

Connors Wins Skeleton Sled title

Douglas Connors of Canada captured the world skeleton sled championship at St. Moritz, Switzerland, in 1955. Connors' time for six runs on the Cresta course was 308.8 seconds. Charles Stucki of Switzerland was second in 310.7.

Women's Singles

1887 Ellen F. Hansell
1888 Bertha L. Townsend
1889 Bertha L. Townsend
1890 Ellen C. Roosevelt
1891 Mabel E. Cahill
1892 Mabel E. Cahill
1893 Aline M. Terry
1894 Helen R. Helwig
1895 Juliette P. Atkinson
1896 Elisabeth H. Moore
1897 Juliette P. Atkinson
1898 Juliette P. Atkinson
1899 Marion Jones
1900 Myrtle McAteer
1901 Elisabeth H. Moore
1902 Marion Jones
1903 Elisabeth H. Moore
1904 May G. Sutton
1905 Elisabeth H. Moore
1906 Helen Homans
1907 Evelyn Sears
1908 Mrs. Maud Bargar-Wallach
1909 Hazel V. Hotchkiss
1910 Hazel V. Hotchkiss
1911 Hazel V. Hotchkiss
1912 Mary K. Browne
1913 Mary K. Browne
1914 Mary K. Browne
1915 Molla Bjurstedt
1916 Molla Bjurstedt
1917 Molla Bjurstedt*
1918 Molla Bjurstedt†
1919 Mrs. George W. Wightman
1920 Mrs. Franklin I. Mallory
1921 Mrs. Franklin I. Mallory
1922 Mrs. Franklin I. Mallory
1923 Helen N. Wills
1924 Helen N. Wills
1925 Helen N. Wills
1926 Mrs. Franklin I. Mallory
1927 Helen N. Wills
1928 Helen N. Wills
1929 Helen N. Wills
1930 Betty Nuthall
1931 Mrs. Helen W. Moody
1932 Helen Jacobs
1933 Helen Jacobs
1934 Helen Jacobs
1935 Helen Jacobs
1936 Alice Marble
1937 Anita Lizana
1938 Alice Marble
1939 Alice Marble
1940 Alice Marble
1941 Mrs. Sarah P. Cooke
1942 Pauline M. Betz
1943 Pauline M. Betz
1944 Pauline M. Betz
1945 Mrs. Sarah P. Cooke
1946 Pauline M. Betz
1947 A. Louise Brough
1948 Mrs. M. O. du Pont
1949 Mrs. M. O. du Pont
1950 Mrs. M. O. du Pont
1951 Maureen Connolly
1952 Maureen Connolly
1953 Maureen Connolly
1954 Doris Hart

* Louise Hammond won patriotic tourney. † Challenge round abandoned.

Women's Doubles

1890 Ellen C. Roosevelt—Grace W. Roosevelt
1891 Mabel E. Cahill—Mrs. W. F. Morgan
1892 Mabel E. Cahill—A. M. McKinley
1893 Aline M. Terry—Hattie Butler
1894 Helen R. Helwig—J. P. Atkinson
1895 Helen R. Helwig—J. P. Atkinson
1896 E. H. Moore—J. P. Atkinson
1897 J. P. Atkinson—Kathleen Atkinson
1898 J. P. Atkinson—Kathleen Atkinson
1899 Jane W. Craven—Myrtle McAteer
1900 Edith Parker—Hallie Champlin
1901 J. P. Atkinson—Myrtle McAteer
1902 J. P. Atkinson—Marion Jones
1903 E. H. Moore—Carrie B. Neely
1904 May G. Sutton—Miriam Hall
1905 Helen Homans—Carrie B. Neely
1906 Mrs. L. S. Coe—Mrs. D. S. Platt
1907 Marie Weimer—Carrie B. Neely
1908 Evelyn Sears—Margaret Curtis
1909 Hazel V. Hotchkiss—Edith E. Rotch
1910 Hazel V. Hotchkiss—Edith E. Rotch
1911 Hazel V. Hotchkiss—Eleanora Sears
1912 Dorothy Green—Mary K. Browne
1913 Mary K. Browne—Mrs. R. H. Williams
1914 Mary K. Browne—Mrs. R. H. Williams
1915 Mrs. G. W Wightman—Eleanora Sears
1916 Molla Bjurstedt—Eleanora Sears
1917 Molla Bjurstedt—Eleanora Sears
1918 Marion Zinderstein—Eleanor Goss
1919 Marion Zinderstein—Eleanor Goss
1920 Marion Zinderstein—Eleanor Goss
1921 Mary K. Browne—Mrs. R. H. Williams
1922 Mrs. J. B. Jessup—Helen N. Wills
1923 Kathleen McKane—Mrs. B. C. Covell
1924 Mrs. G. W. Wightman—Helen N. Wills
1925 Mary K. Browne—Helen N. Wills
1926 Elizabeth Ryan—Eleanor Goss
1927 Mrs. L. A. Godfree—Ermyntrude Harvey
1928 Mrs. G. W. Wightman—Helen N. Wills
1929 Mrs. Phoebe Watson—Mrs. L. R. C. Michell
1930 Betty Nuthall—Sarah Palfrey
1931 Betty Nuthall—Mrs. E. B. Whittingstall
1932 Helen Jacobs—Sarah Palfrey
1933 Betty Nuthall—Freda James
1934 Helen Jacobs—Sarah Palfrey
1935 Helen Jacobs—Mrs. S. P. Fabyan
1936 Mrs. M. G. Van Ryn—Carolin Babcock
1937 Mrs. S. P. Fabyan—Alice Marble
1938 Mrs. S. P. Fabyan—Alice Marble
1939 Mrs. S. P. Fabyan—Alice Marble
1940 Mrs. S. P. Fabyan—Alice Marble
1941 Mrs. S. P. Cooke—Margaret Osborne
1942 A. Louise Brough—Margaret Osborne
1943 A. Louise Brough—Margaret Osborne
1944 A. Louise Brough—Margaret Osborne
1945 A. Louise Brough—Margaret Osborne
1946 A. Louise Brough—Margaret Osborne
1947 A. Louise Brough—Margaret Osborne
1948 A. Louise Brough—Mrs. Margaret O. du Pont
1949 A. Louise Brough—Mrs. Margaret O. du Pont
1950 A. Louise Brough—Mrs. Margaret O. du Pont
1951 Doris Hart—Shirley Fry
1952 Doris Hart—Shirley Fry
1953 Doris Hart—Shirley Fry
1954 Doris Hart—Shirley Fry

ATHLETES OF THE YEAR

(Associated Press polls)

MALE FEMALE

1931—Pepper Martin (baseball); Helene Madison (swimming)
1932—Gene Sarazen (golf); Mildred Didrikson (track)
1933—Carl Hubbell (baseball); Helen Jacobs (tennis)
1934—Dizzy Dean (baseball); Virginia Van Wie (golf)
1935—Joe Louis (boxing); Helen Wills Moody (tennis)
1936—Jesse Owens (track); Helen Stephens (track)
1937—Don Budge (tennis); Katherine Rawls (swimming)
1938—Don Budge (tennis); Patty Berg (golf)
1939—Nile Kinnick (football); Alice Marble (tennis)
1940—Tommy Harmon (football); Alice Marble (tennis)
1941—Joe DiMaggio (baseball); Betty Hicks Newell (golf)
1942—Frank Sinkwich (football); Gloria Callen (swimming)
1943—Gilbert Hogg (track); Patty Berg (golf)
1944—Byron Nelson (golf); Ann Curtis (swimming)
1945—Byron Nelson (golf); Mildred Didrikson Zaharias (golf)
1946—Glenn Davis (football); Mildred D. Zaharias (golf)
1947—Johnny Lujack (football); Mildred D. Zaharias (golf)
1948—Lou Boudreau (baseball); Fanny Blankers-Koen (track)
1949—Leon Hart (football); Marlene Bauer (golf)
1950—Jim Konstanty (baseball); Mildred D. Zaharias (golf)
1951—Dick Kazmaier (football); Maureen Connolly (tennis)
1952—Robert Mathias (track and field); Maureen Connolly (tennis)
1953—Ben Hogan (golf); Maureen Connolly (tennis)
1954—Willie Mays (baseball); Mildred D. Zaharias (golf)

BRITISH LAWN TENNIS CHAMPIONS

Men's Singles

1877	S. W. Gore	1894	J. Pin	1911	A. F. Wilding	1932	H. E. Vines, Jr.
1878	P. F. Hadow	1895	W. Baddeley	1912	A. F. Wilding	1933	J. H. Crawford
1879	J. T. Hartley	1896	H. S. Mahony	1913	A. F. Wilding	1934	F. J. Perry
1880	J. T. Hartley	1897	R. F. Doherty	1914	N. E. Brookes	1935	F. J. Perry
1881	W. Renshaw	1898	R. F. Doherty	1919	G. L. Patterson	1936	F. J. Perry
1882	W. Renshaw	1899	R. F. Doherty	1920	W. T. Tilden, II	1937	J. D. Budge
1883	W. Renshaw	1900	R. F. Doherty	1921	W. T. Tilden, II	1938	J. D. Budge
1884	W. Renshaw	1901	A. W. Gore	1922	G. L. Patterson*	1939	R. L. Riggs
1885	W. Renshaw	1902	H. L. Doherty	1923	W. M. Johnston	1946	Yvon Petra
1886	W. Renshaw	1903	H. L. Doherty	1924	J. Borotra	1947	John A. Kramer
1887	H. F. Lawford	1904	H. L. Doherty	1925	R. Lacoste	1948	R. Falkenburg
1888	E. Renshaw	1905	H. L. Doherty	1926	J. Borotra	1949	F. R. Schroeder, Jr.
1889	W. Renshaw	1906	H. L. Doherty	1927	H. Cochet	1950	Budge Patty
1890	W. J. Hamilton	1907	N. E. Brookes	1928	R. Lacoste	1951	Richard Savitt
1891	W. Baddeley	1908	A. W. Gore	1929	H. Cochet	1952	Frank Sedgman
1892	W. Baddeley	1909	A. W. Gore	1930	W. T. Tilden, II	1953	E. Victor Seixas, Jr.
1893	J. Pin	1910	A. F. Wilding	1931	S. B. Wood	1954	Jaroslav Drobny

* Challenge round abandoned.

Men's Doubles

1879	L. R. Erskine—H. F. Lawford	1900	R. F. Doherty—H. L. Doherty	1925	J. Borotra—R. Lacoste
1880	W. Renshaw—E. Renshaw	1901	R. F. Doherty—H. L. Doherty	1926	H. Cochet—J. Brugnon
1881	W. Renshaw—E. Renshaw	1902	S. H. Smith—F. L. Riseley	1927	W. T. Tilden, II—F. T. Hunter
1882	J. T. Hartley—R. T. Richardson	1903	R. F. Doherty—H. L. Doherty	1928	H. Cochet—J. Brugnon
1883	C. W. Grinstead—C. E. Welldon	1904	R. F. Doherty—H. L. Doherty	1929–30	W. Allison—J. Van Ryn
1884	W. Renshaw—E. Renshaw	1905	R. F. Doherty—H. L. Doherty	1931	G. M. Lott—J. Van Ryn
1885	W. Renshaw—E. Renshaw	1906	S. H. Smith—F. L. Riseley	1932–33	J. Borotra—J. Brugnon
1886	W. Renshaw—E. Renshaw	1907	N. E. Brookes—A. F. Wilding	1934	G. M. Lott—L. R. Stoefen
1887	P. Bowes-Lyon—H. W. W. Wilberforce	1908	A. F. Wilding—M. J. G. Ritchie	1935	J. H. Crawford—A. K. Quist
		1909	A. W. Gore—H. R. Barrett	1936	C. R. D. Tuckey—G. P. Hughes
1888	W. Renshaw—E. Renshaw	1910	A. F. Wilding—M. J. G. Ritchie	1937	J. D. Budge—C. Gene Mako
1889	W. Renshaw—E. Renshaw	1911	M. Decugis—A. H. Gobert	1938	J. D. Budge—C. Gene Mako
1890	J. L. Pim—F. O. Stoker	1912	H. R. Barrett—C. P. Dixon	1939	R. L. Riggs—E. T. Cooke
1891	W. Baddeley—H. Baddeley	1913	H. R. Barrett—C. P. Dixon	1946	J. A. Kramer—Tom Brown
1892	H. S. Barlow—E. W. Lewis	1914	N. E. Brookes—A. F. Wilding	1947	J. A. Kramer—R. Falkenburg
1893	J. L. Pim—F. O. Stoker	1919	R. V. Thomas—P. O'Hara Wood	1948	J. Bromwich—F. Sedgman
1894	W. Baddeley—H. Baddeley	1920	R. N. Williams, II—C. S. Garland	1949	F. Parker—R. Gonzales
1895	W. Baddeley—H. Baddeley	1921	R. Lycett—M. Woosnam	1950	J. Bromwich—A. Quist
1896	W. Baddeley—H. Baddeley	1922	R. Lycett—J. O. Anderson*	1951	F. Sedgman—K. McGregor
1897	R. F. Doherty—H. L. Doherty	1923	R. Lycett—L. A. Godfree	1952	F. Sedgman—K. McGregor
1898	R. F. Doherty—H. L. Doherty	1924	V. Richards—F. T. Hunter	1953	K. Rosewall—L. Hoad
1899	R. F. Doherty—H. L. Doherty	* Challenge round abandoned.		1954	R. Hartwig—M. Rose

Women's Singles

1884	M. Watson	1899	Mrs. Hillyard	1914	Mrs. L. Chambers
1885	M. Watson	1900	Mrs. Hillyard	1915–18	No tournaments
1886	Miss Bingley	1901	Mrs. Sterry	1919	Mlle. Lenglen
1887	L. Dod	1902	M. E. Robb	1920	Mlle. Lenglen
1888	L. Dod	1903	Miss Douglas	1921	Mlle. Lenglen
1889	Mrs. Hillyard	1904	Miss Douglas	1922	Mlle. Lenglen
1890	L. Rice	1905	M. Sutton	1923	Mlle. Lenglen
1891	L. Dod	1906	Miss Douglas	1924	K. McKane
1892	L. Dod	1907	M. Sutton	1925	Mlle. Lenglen
1893	L. Dod	1908	Mrs. Sterry	1926	Mrs. Godfree
1894	Mrs. Hillyard	1909	D. Boothby	1927	H. Wills
1895	C. Cooper	1910	Mrs. L. Chambers	1928	H. Wills
1896	C. Cooper	1911	Mrs. L. Chambers	1929	H. Wills
1897	Mrs. Hillyard	1912	Mrs. Larcombe	1930	Mrs. F. S. Moody
1898	C. Cooper	1913	Mrs. L. Chambers	1931	Frl. C. Aussen
				1932	Mrs. F. S. Moody
				1933	Mrs. F. S. Moody
				1934	D. E. Round
				1935	Mrs. F. S. Moody
				1936	H. H. Jacobs
				1937	D. E. Round
				1938	Mrs. F. S. Moody
				1939	A. Marble
				1946	Pauline M. Betz
				1947	Margaret Osborne
				1948	A. Louise Brough
				1949	A. Louise Brough
				1950	A. Louise Brough
				1951	Doris Hart
				1952–54	M. Connolly

Women's Doubles

1913	Mrs. McNair—Miss Boothby	1928	Mrs. H. Watson—P. Saunders	1938	A. Marble—Mrs. S. P. Fabyan
1914	Miss Ryan—A. M. Morton	1929	Mrs. H. Watson—Mrs. Michell	1939	A. Marble—Mrs. S. P. Fabyan
1919	Mlle. Lenglen—Miss Ryan	1930	Miss Ryan—Mrs. F. S. Moody	1946	A. L. Brough—M. Osborne
1920	Mlle. Lenglen—Miss Ryan	1931	Mrs. Shepherd-Barron—Mrs. Mudford King	1947	Doris Hart—Mrs. Pat Todd
1921	Mlle. Lenglen—Miss Ryan			1948	A. L. Brough—Mrs. M. O. du Pont
1922	Mlle. Lenglen—Miss Ryan	1932	Mlle. D. Metaxa—Mlle. J. Sigart	1949	A. L. Brough—Mrs. M. O. du Pont
1923	Mlle. Lenglen—Miss Ryan	1933	Miss Ryan—Mme. Mathieu	1950	A. L. Brough—Mrs. M. O. du Pont
1924	Mrs. Wightman—H. Wills	1934	Miss Ryan—Mme. Mathieu	1951	Doris Hart—Shirley Fry
1925	Mlle. Lenglen—Miss Ryan	1935	K. E. Stammers—F. James	1952–53	Doris Hart—Shirley Fry
1926	Miss Ryan—M. K. Browne	1936	K. E. Stammers—F. James	1954	A. L. Brough—Mrs. M. O. du Pont
1927	Miss Ryan—H. Wills	1937	Mme. S. Mathieu—A. M. Yorke		

THE OLYMPIC GAMES

(W)—Site of Winter Games. (S)—Site of Summer Games.

1896—Athens	1912—Stockholm	1928—Amsterdam (S)	1936—Berlin (S)
1900—Paris	1920—Antwerp	1932—Lake Placid (W)	1948—St. Moritz (W)
1904—St. Louis	1924—Chamonix (W)	1932—Los Angeles (S)	1948—London (S)
1906—Athens	1924—Paris (S)	1936—Garmisch-Partenkirchen (W)	1952—Oslo (W)
1908—London	1928—St. Moritz (W)		1952—Helsinki (S)

THE first Olympic Games of which there is record occurred in 776 B.C. and consisted of one event, a great foot race of about 200 yards held on a plain by the River Alpheus (now the Ruphia) just outside the little town of Olympia in Greece. It was from that date that the Greeks began to keep their calendar by "Olympiads," the four-year spans between the celebrations of the famous games. There was a religious as well as an athletic significance to the ancient games and the shrines, temples and sacred fires within the Olympic enclosure were the scenes of worship all through the year whereas the Olympic Games, at the height of their popularity, never lasted more than five days and were held only once every four years.

The competition was entirely amateur at the start and the only prizes were laurel wreaths. Only free Greek citizens were allowed to compete and they had to undergo a strict training course that lasted ten months. But civic rivalry led to trickery and professionalism and the games became degraded after some centuries. When Rome conquered Greece, the Roman emperors turned the Olympic Games from patriotic, religious and athletic festivals into carnivals and circuses. They dragged on malodorously until they were finally halted by decree of Emperor Theodosius I of Rome in A.D. 394.

The modern Olympic Games, which started in Athens in 1896, are the result of the devotion of a French educator, Baron Pierre de Coubertin, to the idea that, since boys and athletics have gone together down the ages, education and athletics might well go hand-in-hand toward a better international understanding. He planned a revival of the ancient Olympic Games on a world-wide basis and succeeded in getting nine nations to send athletes to the first of the modern games in 1896. Since then more than 29,000 athletes representing 58 nations have competed in the games.

Interrupted for the second time by war, the modern Olympic Games were resumed at London in 1948.

OLYMPIC GAMES CHAMPIONS, 1896–1952

Source: United States Olympic Association

TRACK AND FIELD—MEN

60-Meter Run

1900	A. E. Kraenzlein, United States	7s.
1904	Archie Hahn, United States	7s.

100-Meter Run

1896	T. E. Burke, United States	12s.
1900	F. W. Jarvis, United States	10.8s.
1904	Archie Hahn, United States	11s.
1906	Archie Hahn, United States	11.2s.
1908	R. E. Walker, South Africa	10.8s.
1912	R. C. Craig, United States	10.8s.
1920	C. W. Paddock, United States	10.8s.
1924	H. M. Abrahams, Great Britain	10.6s.
1928	Percy Williams, Canada	10.8s.
1932	Eddie Tolan, United States	10.3s.
1936	Jesse Owens, United States	10.3s.*
1948	Harrison Dillard, United States	10.3s.
1952	Lindy Remigino, United States	10.4s.

* With the wind.

200-Meter Run

1900	J. W. B. Tewksbury, United States	22.2s.
1904	Archie Hahn, United States	21.6s.
1908	R. Kerr, Canada	22.4s.
1912	R. C. Craig, United States	21.7s.
1920	Allan Woodring, United States	22s.
1924	J. V. Scholz, United States	21.6s.
1928	Percy Williams, Canada	21.8s.
1932	Eddie Tolan, United States	21.2s.
1936	Jesse Owens, United States	20.7s.
1948	Melvin E. Patton, United States	21.1s.
1952	Andrew Stanfield, United States	20.7s.

400-Meter Run

1896	T. E. Burke, United States	54.2.
1900	M. W. Long, United States	49.4.
1904	H. L. Hillman, United States	49.2.
1906	Paul Pilgrim, United States	53.2.
1908	W. Halswelle, Great Britain (walkover)	50s.
1912	C. D. Reidpath, United States	48.2s.
1920	B. G. D. Rudd, South Africa	49.6s.
1924	E. H. Liddell, Great Britain	47.6s.
1928	Ray Barbuti, United States	47.8s.
1932	William Carr, United States	46.2s.
1936	Archie Williams, United States	46.5s.
1948	Arthur Wint, Jamaica, B.W.I.	46.2s.
1952	George Rhoden, Jamaica, B. W. I.	45.9s.

800-Meter Run

1896	E. H. Flack Great Britain	2m.11s.
1900	A. E. Tysoe, Great Britain	2m.1.4s.
1904	J. D. Lightbody, United States	1m.56s.
1906	Paul Pilgrim, United States	2m.1.2s.
1908	M. W. Sheppard, United States	1m.52.8s.
1912	J. E. Meredith, United States	1m.51.9s.
1920	A. G. Hill, Great Britain	1m.53.4s.
1924	D. G. A. Lowe, Great Britain	1m.52.4s.
1928	D. G. A. Lowe, Great Britain	1m.51.8s.
1932	Thomas Hampson, Great Britain	1m.49.8s.
1936	John Woodruff, United States	1m.52.9s.
1948	Malvin Whitfield, United States	1m.49.2s.
1952	Malvin Whitfield, United States	1m.49.2s.

1,500-Meter Run

1896	E. H. Flack, Great Britain	4m.33.2s.
1900	C. Bennett, Great Britain	4m.6s.
1904	J. D. Lightbody, United States	4m.5.4s.
1906	J. D. Lightbody, United States	4m.12s.
1908	M. W. Sheppard, United States	4m.3.4s.
1912	A. N. S. Jackson, Great Britain	3m.56.8s.
1920	A. G. Hill, Great Britain	4m.1.8s.
1924	Paavo Nurmi, Finland	3m.53.6s.
1928	H. E. Larva, Finland	3m.53.2s.
1932	Luigi Beccali, Italy	3m.51.2s.
1936	J. E. Lovelock, New Zealand	3m.47.8s.
1948	Henri Eriksson, Sweden	3m.49.8s.
1952	Joseph Barthel, Luxemburg	3m.45.2s.

5,000-Meter Run

1912	H. Kolehmainen, Finland	14m.36.6s.
1920	J. Guillemot, France	14m.55.6s.
1924	Paavo Nurmi, Finland	14m.31.2s.
1928	Willie Ritola, Finland	14m.38s.
1932	Lauri Lehtinen, Finland	14m.30s.
1936	Gunnar Hockert, Finland	14m.22.2s.
1948	Gaston Reiff, Belgium	14m.17.6s.
1952	Emil Zatopek, Czechoslovakia	14m.6.6s.

5-Mile Run

1906	H. Hawtrey, Great Britain	26m.26.2s.
1908	E. R. Voigt, Great Britain	25m.11.2s.

10,000-Meter Run

1912	H. Kolehmainen, Finland	31m.20.8s.
1920	Paavo Nurmi, Finland	31m.45.8s.
1924	Willie Ritola, Finland	30m.23.2s.
1928	Paavo Nurmi, Finland	30m.18.8s.
1932	Janusz Kusocinski, Poland	30m.11.4s.
1936	Ilmari Salminen, Finland	30m.15.4s.
1948	Emil Zatopek, Czechoslovakia	29m.59.6s.
1952	Emil Zatopek, Czechoslovakia	29m.17s.

Marathon

1896	S. Loues, Greece	2h.55m.20s.
1900	M. Teato, France	2h.59m.
1904	T. J. Hicks, United States	3h.28m.53s.
1906	W. J. Sherring, Canada	2h.51m.23.6s.
1908	John J. Hayes, United States	2h.55m.18.4s.
1912	K. K. McArthur, South Africa	2h.36m.54.8s.
1920	H. Kolehmainen, Finland	2h.32m.35.8s.
1924	A. O. Stenroos, Finland	2h.41m.22.6s.
1928	El Ouafi, France	2h.32m.57s.
1932	Juan Zabala, Argentina	2h.31m.36s.
1936	Kitei Son, Japan	2h.29m.19.2s.
1948	Delfo Cabrera, Argentina	2h.34m.51.6s.
1952	Emil Zatopek, Czechoslovakia	2h.23m.3.2s.

110-Meter Hurdles

1896	Curtis, United States	17.6s.
1900	A. E. Kraenzlein, United States	15.4s.
1904	F. W. Schule, United States	16s.
1906	R. G. Leavitt, United States	16.2s.
1908	Forrest Smithson, United States	15s.
1912	F. W. Kelly, United States	15.1s.
1920	E. J. Thomson, Canada	14.8s.
1924	D. C. Kinsey, United States	15s.
1928	S. Atkinson, South Africa	14.8s.
1932	George Saling, United States	14.6s.
1936	Forrest Towns, United States	14.2s.
1948	William Porter, United States	13.9s.
1952	Harrison Dillard, United States	13.7s.

200-Meter Hurdles

1900	A. E. Kraenzlein, United States	25.4s.
1904	H. L. Hillman, United States	24.6s.

400-Meter Hurdles

1900	J. W. B. Tewksbury, United States	57.6s.
1904	H. L. Hillman, United States	53s.
1908	C. J. Bacon, United States	55s.
1920	F. F. Loomis, United States	54s.
1924	F. M. Taylor, United States	52.6s.
1928	Lord David Burghley, Great Britain	53.4s.
1932	Robert Tisdall, Ireland	51.8s.*
1936	Glenn Hardin, United States	52.4s.
1948	Roy Cochran, United States	51.1s.
1952	Charles Moore, United States	50.8s.

* Record not allowed.

2,500-Meter Steeplechase

1900	G. W. Orton, United States	7m.34s.
1904	J. D. Lightbody, United States	7m.39.6s.

3,000-Meter Steeplechase

1920	P. Hodge, Great Britain	10m.2.4s.
1924	Willie Ritola, Finland	9m.33.6s.
1928	T. A. Loukola, Finland	9m.21.8s.
1932	Volmari Iso-Hollo, Finland	10m.33.4s.*
1936	Volmari Iso-Hollo, Finland	9m.3.8s.
1948	Thure Sjoestrand, Sweden	9m.4.6s.
1952	Horace Ashenfelter, United States	8m.45.4s.

* About 3,450 meters—extra lap by error.

3,200-Meter Steeplechase

1908	A. Russell, Great Britain	10m.47.8s.

4,000-Meter Steeplechase

1900	C. Rimmer, Great Britain	12m.58.4s.

3,000-Meter Team

1912	United States	9 pts.
1920	United States	10 pts.
1924	Finland	8 pts.

3-Mile Team

1908	Great Britain	6 pts.

8,000-Meter X-Country

1912	H. Kolehmainen, Finland	45m.11.6s.

8,000-Meter X-Country Team

1912	Sweden	

10,000-Meter X-Country

1920	Paavo Nurmi, Finland	27m.15s.
1924	Paavo Nurmi, Finland	32m.54.8s.

10,000-Meter X-Country Team

1912	Sweden	10 pts.
1920	Finland	10 pts.
1924	Finland	11 pts.

1,500-Meter Walk

1906	George V. Bonhag, United States	7m.12.6s.

3,000-Meter Walk

1906	G. Stantics, Hungary	
1920	Ugo Frigerio, Italy	13m.14.2s.

3,500-Meter Walk

1908	G. E. Larner, Great Britain	14m.55s.

10,000-Meter Walk

1912	G. H. Goulding, Canada	46m.28.4s.
1920	Ugo Frigerio, Italy	48m.6.2s.
1924	Ugo Frigerio, Italy	47m.49s.
1948	John Mikaelsson, Sweden	45m.13.2s.
1952	John Mikaelsson, Sweden	45m.2.8s.

10-Mile Walk

1908	G. E. Larner, Great Britain	1h.15m.57.4s.

50,000-Meter Walk

1932	Thomas W. Green, Great Britain	4h.50m.10s.
1936	Harold Whitlock, Great Britain	4h.30m.41.4s.
1948	John Ljunggren, Sweden	4h.41m.52s.
1952	Giuseppe Bordoni, Italy	4h.28m.7.8s.

400-Meter Relay

1912	Great Britain	42.4s.
1920	United States	42.2s.
1924	United States	41s.
1928	United States	41s.
1932	United States	40s.
1936	United States	39.8s.
1948	United States	40.6s.
1952	United States	40.1s.

1,600-Meter Relay

1908	United States	3m.27.2s.
1912	United States	3m.16.6s.
1920	Great Britain	3m.22.2s.
1924	United States	3m.16s.
1928	United States	3m.14.2s.
1932	United States	3m.8.2s.
1936	Great Britain	3m.9s.
1948	United States	3m.10.4s.
1952	Jamaica, B. W. I.	3m.3.9s.

Pole Vault

1896	W. W. Hoyt, United States	10 ft. 9¾ in.
1900	I. K. Baxter, United States	10 ft. 9.9 in.
1904	C. E. Dvorak, United States	11 ft. 6 in.
1906	Gonder, France	11 ft. 6 in.
1908	A. C. Gilbert, United States E. T. Cook, Jr., United States	12 ft. 2 in.
1912	H. J. Babcock, United States	12 ft. 11½ in
1920	F. K. Foss, United States	13 ft. 5 in.
1924	L. S. Barnes, United States	12 ft. 11½ in.
1928	Sabin W. Carr, United States	13 ft. 9⅝ in.
1932	William Miller, United States	14 ft. 1⅞ in.
1936	Earle Meadows, United States	14 ft. 3¼ in.
1948	Guinn Smith, United States	14 ft. 1¼ in.
1952	Robert Richards, United States	14 ft. 11.14 in.

Standing High Jump

1900	R. C. Ewry, United States	5 ft. 5 in.
1904	R. C. Ewry, United States	4 ft. 11 in.
1906	R. C. Ewry, United States	5 ft. 1⅝ in.
1908	R. C. Ewry, United States	5 ft. 2 in.
1912	Platt Adams, United States	5 ft. 4½ in.

Running High Jump

1896	E. H. Clark, United States	5 ft. 11¼ in.
1900	I. K. Baxter, United States	6 ft. 2⅜ in.
1904	S. S. Jones, United States	5 ft. 11 in.
1906	Con Leahy, Ireland	5 ft. 9⅞ in.
1908	H. F. Porter, United States	6 ft. 3 in.
1912	A. W. Richards, United States	6 ft. 4 in.
1920	R. W. Landon, United States	6 ft. 4¼ in.
1924	H. M. Osborn, United States	6 ft. 5 15/16 in.
1928	Robert W. King, United States	6 ft. 4⅜ in.
1932	Duncan McNaughton, Canada	6 ft. 5⅝ in.
1936	Cornelius Johnson, United States	6 ft. 7 15/16 in.
1948	John Winter, Australia	6 ft. 6 in.
1952	Walter Davis, United States	6 ft. 8.32 in.

Standing Broad Jump

1900	R. C. Ewry, United States	10 ft. 6⅝ in
1904	R. C. Ewry, United States	11 ft. 4⅞ in.
1906	R. C. Ewry, United States	10 ft. 10 in.
1908	R. C. Ewry, United States	10 ft. 11¼ in.
1912	C. Tsicilitiras, Greece	11 ft. ¼ in.

Running Broad Jump

1896	E. H. Clark, United States	20 ft. 9¼ in.
1900	A. E. Kraenzlein, United States	23 ft. 6⅞ in.
1904	Myer Prinstein, United States	24 ft. 1 in.
1906	Myer Prinstein, United States	23 ft. 7½ in.
1908	Frank Irons, United States	24 ft. 6½ in.
1912	A. L. Gutterson, United States	24 ft. 11¼ in.
1920	Wm. Pettersson, Sweden	23 ft. 5½ in.
1924	DeHart Hubbard, United States	24 ft. 5⅛ in.
1928	Edward B. Hamm, United States	25 ft. 4¾ in.
1932	Edward Gordon, United States	25 ft. ¾ in.
1936	Jesse Owens, United States	26 ft. 5 5/16 in.
1948	Willie Steele, United States	25 ft. 8 in.
1952	Jerome Biffle, United States	24 ft. 10.03 in.

Standing Hop, Step, and Jump

1900	R. C. Ewry, United States	34 ft. 8½ in.
1904	R. C. Ewry, United States	34 ft. 7¼ in.

Running Hop, Step, and Jump

1896	J. B. Connolly, United States	45 ft.
1900	Myer Prinstein, United States	47 ft. 4¼ in.
1904	Myer Prinstein, United States	47 ft.
1906	P. O'Connor, Ireland	46 ft. 2 in.
1908	T. J. Ahearne, Great Britain	48 ft. 11¼ in.
1912	G. Lindblom, Sweden	48 ft. 5½ in.
1920	V. Tuulos, Finland	47 ft. 6⅞ In.
1924	A. W. Winter, Australia	50 ft. 11½ in.
1928	Mikio Oda, Japan	49 ft. 10 11/16 in.
1932	Chuhei Nambu, Japan	51 ft. 7 in.
1936	Naoto Tajima, Japan	52 ft. 5⅞ in.
1948	Arne Ahman, Sweden	50 ft. 6¼ in.
1952	Adhemar da Silva, Brazil	53 ft. 2.59 in.

16-Lb. Shot-put

1896	Robert Garrett, United States	36 ft. 2 in.
1900	R. Sheldon, United States	46 ft. 3½ in.
1904	Ralph Rose, United States	48 ft. 7 in.
1906	M. J. Sheridan, United States	40 ft. 4⅝ in.
1908	Ralph Rose, United States	46 ft. 7½ in.
1912	P. J. McDonald, United States	50 ft. 4 in.
1920	V. Porhola, Finland	48 ft. 7⅛ in.
1924	Clarence Houser, United States	49 ft. 2½ in.
1928	John Kuck, United States	52 ft. 1 1/16 in.
1932	Leo Sexton, United States	52 ft. 6 1/16 in.
1936	Hans Woellke, Germany	53 ft. 1¾ in.
1948	Wilbur Thompson, United States	56 ft. 2 in.
1952	Parry O'Brien, United States	57 ft. 1.43 in.

16-Lb. Shot-put (Both Hands)

1912	Ralph Rose, United States	90 ft. 5⅛ in.

16-Lb. Hammer Throw

1900	J. J. Flanagan, United States	167 ft. 4 in.
1904	J. J. Flanagan, United States	168 ft. 1 in.
1908	J. J. Flanagan, United States	170 ft. 4¼ in.
1912	M. J. McGrath, United States	177 ft. 7 in.
1920	P. J. Ryan, United States	173 ft. 5⅝ in.
1924	F. D. Tootell, United States	174 ft. 10¼ in.
1928	Patrick O'Callaghan, Ireland	168 ft. 7½ in.
1932	Patrick O'Callaghan, Ireland	176 ft. 11½ in.
1936	Karl Hein, Germany	185 ft. 4 in.
1948	Imre Nemeth, Hungary	183 ft. 11½ in.
1952	Jozsef Csermak, Hungary	197 ft. 11.67 in.

56-Lb. Weight Throw

1904	E. Desmarteau, Canada	34 ft. 4 in.
1920	P. J. McDonald, United Stetes	36 ft. 11⅝ in.

Discus Throw

1896	Robert Garrett, United States	95 ft. 7½ in.
1900	R. Bauer, Hungary	118 ft. 2.9 in.
1904	M. J. Sheridan, United States	128 ft. 10½ in.
1906	M. J. Sheridan, United States	136 ft. ⅓ in.
1908	M. J. Sheridan, United States	134 ft. 2 in.
1912	A. R. Taipale, Finland	148 ft. 3.9 in.
1920	E. Niklander, Finland	146 ft. 7 in.
1924	Clarence Houser, United States	151 ft. 5¼ in.
1928	Clarence Houser, United States	155 ft. 2⅝ in.
1932	John Anderson, United States	162 ft. 4⅞ in.
1936	Ken Carpenter, United States	165 ft. 7¾ in.
1948	Adolfo Consolini, Italy	173 ft. 2 in.
1952	Simeon Iness, United States	180 ft. 6.85 in.

Discus Throw—Greek Style

1906	W. Jaervinen, Finland	115 ft. 4 in.
1908	M. J. Sheridan, United States	124 ft. 8 in.

Discus Throw (Right and Left Hand)

1912	A. R. Taipale, Finland	271 ft. 10⅛ in.

Javelin Throw

1906	E. Lemming, Sweden	175 ft. 6 in.
1908	E. Lemming, Sweden	179 ft. 10½ in.
1912	E. Lemming, Sweden	198 ft. 11¼ in.
1920	Jonni Myyra, Finland	215 ft. 9¾ in.
1924	Jonni Myyra, Finland	206 ft. 6¾ in.
1928	E. H. Lundquist, Sweden	218 ft. 6⅜ in.
1932	Matti Jarvinen, Finland	238 ft. 7 in.
1936	Gerhard Stoeck, Germany	235 ft. 8⅝ in.
1948	Kaj Rautavaara, Finland	228 ft. 10½ in.
1952	Cy Young, United States	242 ft. 0.79 in.

Javelin Throw—Free Style

1908	E. Lemming, Sweden	178 ft. 7½ in.

Javelin Throw (Both Hands)

1912	J. J. Saaristo, Finland	358 ft. 11½ in.

Pentathlon

1906	H. Mellander, Sweden	24 pts.
1912	F. R. Bie, Norway	21 pts.
1920	E. R. Lehtonen, Finland	14 pts.
1924	E. R. Lehtonen, Finland	16 pts

Decathlon

1912	H. Wieslander, Sweden	7,724.495 pts.
1920	H. Lovland, Norway	6,804.35 pts.
1924	H. M. Osborn, United States	7,710.775 pts.
1928	Paavo Yrjola, Finland	8,053.29 pts.
1932	James Bausch, United States	8,462.23 pts.
1936	Glenn Morris, United States	7,900 pts.
1948	Robert B. Mathias, United States	7,139 pts.
1952	Robert B. Mathias, United States	7,887 pts.

(Old point system used from 1912 to 1932; new point system used in 1936 and 1948; revised point system used in 1952.)

TRACK AND FIELD—WOMEN

100-Meter Run

1928	Elizabeth Robinson, United States	12.2s.
1932	Stanislawa Walasiewicz, Poland	11.9s.
1936	Helen Stephens, United States	11.5s.
1948	Fanny Blankers-Koen, Holland	11.9s.
1952	Marjorie Jackson, Australia	11.5s.

200-Meter Run

1948	Fanny Blankers-Koen, Holland	24.4s.
1952	Marjorie Jackson, Australia	23.7s.

800-Meter Run

1928	Lina Radke, Germany	2m.16.8s.

80-Meter Hurdles

1932	Mildred Didrikson, United States	11.7s.
1936	Trebisonda Valla, Italy	11.7s.
1948	Fanny Blankers-Koen, Holland	11.2s.
1952	Shirley S. de la Hunty, Australia	10.9s.

400-Meter Relay

1928	Canada	48.4s.
1932	United States	47s.
1936	United States	46.9s.
1948	Holland	47.5s.
1952	United States	45.9s.

Running High Jump

1928	Ethel Catherwood, Canada	5 ft. 3 in.
1932	Jean Shiley, United States	5 ft. 5¼ in.
1936	Ibolya Csak, Hungary	5 ft. 3 in.
1948	Alice Coachman, United States	5 ft. 6⅛ in.
1952	Ester Brand, South Africa	5 ft. 5.75 in.

Running Broad Jump

1948	V. O. Gyarmati, Hungary	18 ft. 8¼ in.
1952	Yvette Williams, New Zealand	20 ft. 5.66 in.

Discus Throw

1928	H. Konopacka, Poland	129 ft. 11⅞ in.
1932	Lillian Copeland, United States	133 ft. 2 in.
1936	Gisela Mauermayer, Germany	156 ft. 3⅜ in.
1948	Micheline Ostermeyer, France	137 ft. 6½ in.
1952	Nina Romaschkova, Russia	168 ft. 8.5 in.

Javelin Throw

1932	Mildred Didrikson, United States	143 ft. 4 in.
1936	Tilly Fleischer, Germany	148 ft. 2¾ in.
1948	H. Bauma, Austria	149 ft. 6 in.
1952	Dana Zatopek, Czechoslovakia	165 ft. 7.05 in.

Shot-put

1948	Micheline Ostermeyer, France	45 ft. 1½ in.
1952	Galina Zybina, Russia	50 ft. 2.58 in.

SWIMMING—MEN

50 Yards

1904	Zoltan de Halomay, Hungary	28s.

100 Meters

1896	Alfred Hajos, Hungary	1m.22.2s.
1904	Zoltan de Halomay, Hungary	1m.2.8s.*
1906	C. M. Daniels, United States	1m.13s.
1908	C. M. Daniels, United States	1m.5.6s.
1912	Duke P. Kahanamoku, United States	1m.3.4s.
1920	Duke P. Kahanamoku, United States	1m.1.4s.
1924	John Weissmuller, United States	59s.
1928	John Weissmuller, United States	58.6s.
1932	Yasuji Miyazaki, Japan	58.2s.
1936	Ferenc Csik, Hungary	57.6s.
1948	Walter Ris, United States	57.3s.
1952	Clarke Scholes, United States	57.4s.

* 100 yards.

220 Yards

1900	F. C. V. Lane, Australia	
1904	C. M. Daniels, United States	2m.44.2s.

400 Meters

1904	C. M. Daniels, United States	6m.16.2s.*
1906	Otto Sheff, Austria	6m.23.8s.
1908	H. Taylor, Great Britain	5m.36.8s.
1912	G. R. Hodgson, Canada	5m.24.4s.
1920	N. Ross, United States	5m.26.8s.
1924	John Weissmuller, United States	5m.4.2s.
1928	Albert Zorilla, Argentina	5m.1.6s.
1932	Clarence Crabbe, United States	4m.48.4s.
1936	Jack Medica, United States	4m.44.5s.
1948	William Smith, United States	4m.41s.
1952	Jean Boiteux, France	4m.30.7s.

* 440 yards.

500 Meters

1896	Paul Neumann, Austria	

880 Yards

1904	Emil Rausch, Germany	13m.11.4s.

1,000 Meters

1900	Jarvis, Great Britain	

1,200 Meters

1896	Alfred Hajos, Hungary	

1,500 Meters

1908	H. Taylor, Great Britain	22m.48.4s.
1912	G. R. Hodgson, Canada	22m.
1920	N. Ross, United States	22m.23.2s.
1924	A. M. Charlton, Australia	20m.6.6s.
1928	Arne Borg, Sweden	19m.51.8s.
1932	Kusuo Kitamura, Japan	19m.12.4s.
1936	Noboru Terada, Japan	19m.13.7s.
1948	James McLane, United States	19m.18.5s.
1952	Ford Konno, United States	18m.30s.

1,600 Meters

1906	H. Taylor, Great Britain	28m.28s.

One Mile

1904	Emil Rausch, Germany	27m.18.2s.

Plunge for Distance

1904	W. E. Dickey, United States	62 ft. 6 in.

800-Meter Relay

1908	Great Britain	10m.55.6s.
1912	Australia	10m.11.6s.
1920	United States	10m.4.4s.
1924	United States	9m.53.4s.
1928	United States	9m.36.2s.
1932	Japan	8m.58.4s.
1936	Japan	8m.51.5s.
1948	United States	8m.46s.
1952	United States	8m.31.1s.

100-Meter Backstroke

1904	Walter Brack, Germany	1m.16.8s.*
1908	Arno Bieberstein, Germany	1m.24.6s.
1912	Harry Hebner, United States	1m.21.2s.
1920	Warren Kealoha, United States	1m.15.2s.
1924	Warren Kealoha, United States	1m.13.2s.
1928	George Kojac, United States	1m.8.2s.
1932	Masaji Kiyokawa, Japan	1m.8.6s.
1936	Adolph Kiefer, United States	1m.5.9s.
1948	Allen Stack, United States	1m.6.4s.
1952	Yoshinobu Oyakawa, United States	1m.5.4s.

* 100 yards.

200-Meter Breast Stroke

1908	F. Holman, Great Britain	3m.9.2s.
1912	Walter Bathe, Germany	3m.1.8s.
1920	H. Malmroth, Sweden	3m.4.4s.
1924	R. D. Skelton, United States	2m.56.6s.
1928	Y. Tsuruta, Japan	2m.48.8s.
1932	Yoshiyuki Tsuruta, Japan	2m.45.4s.
1936	Tetsuo Hamuro, Japan	2m.42.5s.
1948	Joseph Verdeur, United States	2m.39.3s.
1952	John Davies, Australia	2m.34.4s.

400-Meter Breast Stroke

1904	Georg Zacharias, Germany	7m.23.6s.
1920	H. Malmroth, Sweden	6m.31.8s.

1,000-Meter Team Race

1906	Hungary	17m.16.2s.

Springboard Diving

		Points
1904	G. E. Sheldon, United States	12 2-3
1906	Gottlob Walz, Germany	
1908	Albert Zuerner, Germany	85.5
1912	Paul Guenther, Germany	6
1920	L. E. Kuehn, United States	6
1924	A. C. White, United States	7
1928	P. Desjardins, United States	185.04
1932	Michael Galitzen, United States	161.38
1936	Richard Degener, United States	163.57
1948	Bruce Harlan, United States	163.64
1952	David Browning, United States	205.29

Fancy High Diving

		Points
1912	Eric Adlerz, Sweden	7
1920	C. E. Pinkston, United States	7
1924	A. C. White, United States	9

Plain High Diving

		Points
1908	H. Johanssen, Sweden	83.70
1912	Erik Adlerz, Sweden	7
1920	Arvid Wallman, Sweden	7
1924	Richard Eve, Australia	13½

Plain and Fancy High Diving

		Points
1928	P. Desjardins, United States	98.74
1932	Harold Smith, United States	124.80
1936	Marshall Wayne, United States	113.58
1948	Samuel Lee, United States	130.05
1952	Samuel Lee, United States	156.28

WATER POLO

1900	Great Britain
1904	United States
1908	Great Britain defeated Belgium
1912	Great Britain defeated Austria
1920	Great Britain defeated Belgium
1924	France defeated Belgium
1928	Germany defeated Hungary
1932	Hungary defeated Germany
1936	Hungary
1948	Italy
1952	Hungary

SWIMMING—WOMEN

100 Meters

1920	Ethelda Bleibtrey, United States	1m.13.6s.
1922	Fanny Durack, Australia	1m.22.2s.
1924	Ethel Lackie, United States	1m.12.4s.
1928	Albina Osipowich, United States	1m.11s.
1932	Helene Madison, United States	1m.6.8s.
1936	Hendrika Mastenbroek, Holland	1m.5.9s.
1948	Greta Andersen, Denmark	1m.6.3s.
1952	Katalin Szoke, Hungary	1m.6.8s.

300 Meters

1920	Ethelda Bleibtrey, United States	4m.34s.

400 Meters

1924	Martha Norelius, United States	6m.2.2s.
1928	Martha Norelius, United States	5m.42.8s.
1932	Helene Madison, United States	5m.28.5s.
1936	Hendrika Mastenbroek, Holland	5m.26.4s.
1948	Ann Curtis, United States	5m.17.8s.
1952	Valerie Gyenge, Hungary	5m.12.1s.

400-Meter Relay

1912	Great Britain	5m.52.8s.
1920	United States	5m.11.6s.
1924	United States	4m.58.8s.
1928	United States	4m.47.6s.
1932	United States	4m.38s.
1936	Holland	4m.36s.
1948	United States	4m.29.2s.
1952	Hungary	4m.24.4s.

100-Meter Backstroke

1924	Sybil Bauer, United States	1m.23.2s.
1928	Marie Braun, Holland	1m.22s.
1932	Eleanor Holm, United States	1m.19.4s.
1936	Dina Senff, Holland	1m.18.9s.
1948	Karen Harup, Denmark	1m.14.4s.
1952	Joan Harrison, South Africa	1m.14.3s.

200-Meter Breast Stroke

1924	Lucy Morton, Great Britain	3m.33.2s.
1928	Hilde Schrader, Germany	3m.12.6s.
1932	Clare Dennis, Australia	3m.6.3s.
1936	Hideko Maehata, Japan	3m.3.6s.
1948	Nel van Vliet, Netherlands	2m.57.2s.
1952	Eva Szekely, Hungary	2m.51.7s.

Plain High Diving

		Points
1912	Greta Johansson, Sweden	39.9
1920	Miss Fryland, Denmark	6
1924	Caroline Smith, United States	9

Fancy Springboard Diving

		Points
1920	Aileen Riggin, United States	9
1924	Elizabeth Becker, United States	8
1928	Helen Meany, United States	78.62
1932	Georgia Coleman, United States	87.52
1936	Marjorie Gestring, United States	89.27
1948	Victoria M. Draves, United States	108.74
1952	Mrs. Patricia McCormick, United States	147.30

Plain and Fancy High Diving

		Points
1928	Elizabeth B. Pinkston, United States	31.60
1932	Dorothy Poynton, United States	40.26
1936	Mrs. Dorothy Poynton Hill, United States	33.93
1948	Victoria M. Draves, United States	68.87
1952	Mrs. Patricia McCormick, United States	79.37

BASKETBALL

1904	United States	1948	United States
1936	United States	1952	United States

Olympic Games Competitors

Year	Site	Entries	Year	Site	Entries
1896	Athens	484	1924	Paris	3,385
1900	Paris	427	1928	Amsterdam	3,905
1904	St. Louis	595	1932	Los Angeles	1,700
1906	Athens	901	1936	Berlin	3,959
1908	London	2,082	1948	London	6,000
1912	Stockholm	3,282	1952	Helsinki	5,781
1920	Antwerp	2,741			

1960 Games in Italy, U. S.

The International Olympic Committee decided in 1955 to hold the 1960 Summer Games in Rome, Italy. The winter events will be held in Squaw Valley, Calif.

OTHER 1952 CHAMPIONS

Boxing

Flyweight—Nate Brooks, U. S.
Bantamweight—Pentti Hamalainen, Finland
Featherweight—Jan Zachara, Czechoslovakia
Lightweight—Aureliano bolognesi, Italy
Light welterweight—Charles Adkins, U. S.
Welterweight—Zygmunt Chychla, Poland
Light middleweight—Laszlo Papp, Hungary
Middleweight—Floyd Patterson, U. S.
Light heavyweight—Norvel Lee, U. S.
Heavyweight—Edward Sanders, U. S.

Wrestling

CATCH-AS-CATCH-CAN

Flyweight—Hassen Cemici, Turkey
Bantamweight—Shohachi Ishii, Japan
Featherweight—Bayram Sit, Turkey
Lightweight—Olle Anderberg, Sweden
Welterweight—William Smith, U. S.
Middleweight—David Gimakuridze, Russia
Light heavyweight—Wiking Palm, Sweden
Heavyweight—Arsen Mekokishvilli, Russia

Rowing

Single sculls—Jurig Tijukalov, Russia
Double sculls—T. Cappozza-E. Guerrero, Argentina
4-oared shell with coxswain—Czechoslovakia
4-oared shell without coxswain—Yugoslavia
Pair-oared shell with coxswain—R. Salles-G. Mercier, France
Pair-oared shell without coxswain—Charles Logg, Jr.-Thomas Price, U. S.

SULLIVAN AWARD WINNERS

The James E. Sullivan Memorial Award is given annually to the amateur athlete voted by sports leaders as having done the most to advance sportsmanship.

Year	Winner	Sport
1930	Robert T. Jones, Jr.	Golf
1931	Bernard E. Berlinger	Track and field
1932	James A. Bausch	Track and field
1933	Glenn Cunningham	Running
1934	William R. Bonthron	Running
1935	W. Lawson Little, Jr.	Golf
1936	Glenn Morris	Track and field
1937	J. Donald Budge	Tennis
1938	Donald R. Lash	Running
1939	Joseph W. Burk	Rowing
1940	J. Gregory Rice	Running
1941	Leslie MacMitchell	Running
1942	Cornelius Warmerdam	Pole vaulting
1943	Gilbert L. Dodds	Running
1944	Ann Curtis	Swimming
1945	Felix (Doc) Blanchard	Football
1946	Y. Arnold Tucker	Football
1947	John B. Kelly, Jr.	Rowing
1948	Robert B. Mathias	Track and field
1949	Richard T. Button	Figure skating
1950	Fred Wilt	Running
1951	Robert E. Richards	Track and field
1952	Horace Ashenfelter	Running
1953	Major Sammy Lee	Diving
1954	Malvin Whitfield	Track

U. S. PRO TENNIS CHAMPIONS

1927–30—Vincent Richards
1931—William T. Tilden, II
1932—Karel Kozeluh
1933—Vincent Richards
1934—Hans Nusslein
1935—William T. Tilden, II
1936—Joe Whalen
1937—Karel Kozeluh
1938—Fred Perry
1939—Ellsworth Vines
1940—Don Budge
1941—Fred Perry
1942—Don Budge
1943—Bruce Barnes
1944—No tournament
1945—Welby Van Horn
1946–47—Bobby Riggs
1948—Jack Kramer
1949—Bobby Riggs
1950–51—Francisco Segura
1952–54—No competition

BOXING

WHETHER it be called pugilism, prize fighting or boxing, there is no tracing "the Sweet Science" to any definite source. Tales of rivals exchanging blows for fun, fame or money go back to earliest recorded history and classical legend. There was a mixture of boxing and wrestling called the "pancratium" in the ancient Olympic Games and in such contests the rivals belabored one another with hands fortified with heavy leather wrappings that were sometimes studded with metal. More than one Olympic competitor lost his life at this brutal exercise.

There was little law or order in pugilism until Jack Broughton, one of the early champions of England, drew up a set of rules for the game in 1743. Broughton, called "the father of English boxing," also is credited with having invented boxing gloves. However, these gloves—or "mufflers" as they were called—were used only in teaching "the manly art of self-defense" or in training bouts. All professional championship fights were contested with "bare knuckles" until 1892 when John L. Sullivan lost the heavyweight championship of the world to James J. Corbett in New Orleans in a bout in which both contestants wore regulation gloves.

The Broughton rules were superseded by the London Prize Ring Rules of 1838. The 8th Marquess of Queensberry, with the help of John G. Chambers, put forward the "Queensberry Rules" in 1866, a code that called for gloved contests. Amateurs took quickly to the Queensberry Rules, the professionals slowly.

There is no official international set of rules for boxing even today. Amateur organizations set rules for amateurs in different countries and professional rules set by boxing commissions vary even in different sections of the United States, but the variations are for the most part minor. A prize fighter doesn't have to change his style greatly to ply his trade anywhere in the world.

Boxing Statistics

Source: Nat Fleischer's *All-Time Ring Record Book*, published and copyrighted by The Ring Book Shop, Inc., Madison Square Garden, New York, N. Y.

Boxing's Biggest Gates

WF—Won on foul. ND—No decision. (1st)—First bout. (2d)—Second bout. (3d)—Third bout.

Date	Winner, weight	Loser, weight	Rounds	Site	Receipts	Attendance
Sept. 22, 1927	Tunney (189½)	Dempsey (192½) (2d)	10	Soldier Field, Chicago	$2,658,660	104,943
June 19, 1946	Louis (207)	Conn (187) (2d)	KO 8	Yankee Stadium, New York	1,925,564	45,266
Sept. 23, 1926	Tunney (189½)	Dempsey (190) (1st)	10	Sesquicentennial Stdm., Phila.	1,895,733	120,757
July 2, 1921	Dempsey (188)	Carpentier (172)	KO 4	Boyle's 30 Acres, Jersey City	1,789,238	80,000
Sept. 14, 1923	Dempsey (192½)	Firpo (216½)	KO 2	Polo Grounds, New York	1,188,603*	82,000
July 21, 1927	Dempsey (194½)	Sharkey (196)	KO 7	Yankee Stadium, New York	1,083,530*	75,000
June 22, 1938	Louis (198¾)	Schmeling (193) (2d)	KO 1	Yankee Stadium, New York	1,015,012*	70,000
Sept. 24, 1935	Louis (199¼)	Max Baer (210½)	KO 4	Yankee Stadium, New York	1,000,832*	88,150
Sept. 21, 1955	Marciano (188¼)	Moore (188)	KO 9	Yankee Stadium, New York	948,117	61,574
June 25, 1948	Louis (213½)	Walcott (194¾) (2d)	KO 11	Yankee Stadium, New York	841,739	42,667
Sept. 12, 1951	Robinson (157½)	Turpin (159) (2d)	KO 10	Polo Grounds, New York	767,626	61,370
June 12, 1930	Schmeling (188)	Sharkey (197) (1st)	WF 4	Yankee Stadium, New York	749,935	79,222
June 22, 1937	Louis (197¼)	Braddock (197)	KO 8	Comiskey Park, Chicago	715,470	45,500
July 26, 1928	Tunney (192)	Heeney (203½)	KO 11	Yankee Stadium, New York	691,014	45,890
Sept. 29, 1941	Louis (202¼)	Nova (202½)	KO 6	Polo Grounds, New York	583,711	56,549
June 19, 1936	Schmeling (192)	Louis (198) (1st)	KO 12	Yankee Stadium, New York	547,541	42,088
June 17, 1954	Marciano (187½)	Charles (185½)	15	Yankee Stadium, New York	543,092	47,585
Sept. 11, 1924	Wills (217)	Firpo (224½)	12	Boyle's 30 Acres, Jersey City	509,135	70,000
Sept. 23, 1952	Marciano (184)	Walcott (196)	KO 13	Municipal Stdm., Phila.	504,645	40,379
July 16, 1926	Delaney (166½)	Berlenbach (174¼) (3d)	15	Ebbets Field, Brooklyn	461,789	49,186
July 23, 1923	Leonard (134)	Tendler (133½) (2d)	15	Yankee Stadium, New York	452,648	58,519
July 4, 1919	Dempsey (187)	Willard (245)	KO 3	Toledo, Ohio	452,224	19,650
June 18, 1941	Louis (199½)	Conn (174) (1st)	KO 13	Polo Grounds, New York	451,743	60,071
Sept. 24, 1953	Marciano (185)	LaStarza (184¼)	KO 11	Polo Grounds, New York	435,818	44,562
June 21, 1932	Sharkey (205)	Schmeling (188) (2d)	15	Long Island City Bowl, N. Y.	432,365	61,863
June 14, 1934	Max Baer (209½)	Carnera (263¼)	KO 11	Long Island City Bowl, N. Y.	428,000	56,000
July 16, 1947	Graziano (154¼)	Zale (159) (2d)	KO 6	Chicago Stadium	422,918	18,547
June 25, 1952	Maxim (173)	Robinson (157½)	KO 14	Yankee Stadium, New York	421,698	47,983
Feb. 27, 1929	Sharkey (192)	Stribling (182)	10	Flamingo Park, Miami Beach, Fla.	405,000	40,000
July 12, 1923	Firpo (214)	Willard (242)	KO 8	Boyle's 30 Acres, Jersey City	390,837	80,000
May 12, 1923	Firpo (212)	McAuliffe (200)	KO 3	Yankee Stadium, New York	385,040	31,000
	Willard (245)	Floyd Johnson (195)	KO 11			
June 27, 1929	Schmeling (187)	Uzcudun (192½) (1st)	15	Yankee Stadium, New York	378,902	65,000
July 27, 1922	Leonard (134 15/16)	Tendler (134¾) (1st)	ND 12	Boyle's 30 Acres, Jersey City	367,862	54,685
July 3, 1931	Schmeling (189)	Stribling (186½)	KO 15	Cleveland Stadium	349,415	37,396

* Includes income from other sources, such as motion pictures or radio, or both.

HISTORY OF WORLD HEAVYWEIGHT CHAMPIONSHIP FIGHTS

(Bouts in which title changed hands)

Date	Where held	Winner, weight, age	Loser, weight, age	Rounds	Referee
July 8, 1889	Richburg, Miss.	John L. Sullivan, 198 (30)	Jake Kilrain, 195 (30)	75	John Fitzpatrick
		(Last bare-knuckle title fight)			
Sept. 7, 1892	New Orleans, La.	James J. Corbett, 178 (26)	John L. Sullivan, 212 (33)	21	Prof. John Duffy
March 17, 1897	Carson City, Nev.	Bob Fitzsimmons, 167 (34)	James J. Corbett, 183 (30)	KO 14	George Siler
June 9, 1899	Coney Island, N. Y.	*James J. Jeffries, 206 (24)	Bob Fitzsimmons, 167 (37)	KO 11	George Siler
Feb. 23, 1906	Los Angeles	†Tommy Burns, 180 (24)	Marvin Hart, 188 (29)	20	James J. Jeffries
Dec. 26, 1908	Sydney, N. S. W.	Jack Johnson, 196 (30)	Tommy Burns, 176 (27)	KO 14	Hugh McIntosh
July 4, 1910	Reno, Nev.	Jack Johnson, 208 (31)	James J. Jeffries, 227 (34)	KO 15	Tex Rickard
		(Jeffries came out of retirement in an effort to regain title)			
April 5, 1915	Havana, Cuba	Jess Willard, 230 (31)	Jack Johnson, 205½ (37)	KO 26	Jack Welch
July 4, 1919	Toledo, Ohio	Jack Dempsey, 187 (24)	Jess Willard, 245 (35)	KO 3	Ollie Pecord
Sept. 23, 1926	Philadelphia	‡Gene Tunney, 189½ (28)	Jack Dempsey, 190 (31)	10	Pop Reilly
June 12, 1930	New York	Max Schmeling, 188 (24)	Jack Sharkey, 197 (27)	WF 4	Jim Crowley
June 21, 1932	Long Island City	Jack Sharkey, 205 (29)	Max Schmeling, 188 (26)	15	Gunboat Smith
June 29, 1933	Long Island City	Primo Carnera, 260½ (26)	Jack Sharkey, 201 (30)	KO 6	Arthur Donovan
June 14, 1934	Long Island City	Max Baer, 209½ (25)	Primo Carnera, 263¼ (27)	KO 11	Arthur Donovan
June 13, 1935	Long Island City	Jim Braddock, 193¾ (29)	Max Baer, 209½ (26)	15	Jack McAvoy
June 22, 1937	Chicago	Joe Louis, 197¼ (23)	Jim Braddock, 197 (31)	KO 8	Tommy Thomas
June 22, 1949	Chicago	(a)Ezzard Charles, 181¾ (27)	Joe Walcott, 195½ (35)	15	Davey Miller
Sept. 27, 1950	New York	(b)Ezzard Charles, 184½ (29)	Joe Louis, 218 (36)	15	Mark Conn
July 18, 1951	Pittsburgh	Joe Walcott, 194 (37)	Ezzard Charles, 182 (30)	KO 7	Buck McTiernan
Sept. 23, 1952	Philadelphia	Rocky Marciano, 184 (28)	Joe Walcott, 196 (38)	KO 13	Charley Daggert

*** Lack of opposition caused Jeffries to retire in March 1905. He named Marvin Hart and Jack Root as the leading contenders and agreed to referee their fight at Reno, Nev., on July 3, 1905, with the stipulation that he would designate the winner the world champion. Hart, 190 (28), knocked out Root, 171 (29), in the twelfth round. † Burns claimed the title after defeating Hart. Philadelphia Jack O'Brien became another claimant after fighting a 20-round draw with Burns at Los Angeles on Nov. 28, 1906, with Jeffries as the referee. Burns, 180 (25), eliminated O'Brien, 167 (29), by defeating him in 20 rounds at Los Angeles, May 8, 1907. Charles Eyton was the referee. ‡ Tunney retired after his bout with Tom Heeney in New York on July 26, 1928. Tunney, 192 (30), knocked out Heeney, 203 (30½), in the eleventh round. Ed Forbes was the referee.**

(a) Recognized by the National Boxing Association because Louis had announced his retirement on March 1, 1949. (b) Charles gained undisputed possession of the title by beating Louis, who came out of retirement in an effort to regain the crown.

BARE-KNUCKLE HEAVYWEIGHT CHAMPIONS, 1719–1892

1719—Jim Figg
1734—George Taylor
1740—Jack Broughton
1750—Jack Slack
1760—Bill Stevens
1761—George Meggs
1765—Bill Darts
1777—Harry Sellers
1780—Jack Harris
1785—Tom (Jackling) Johnson
1790—Big Ben Brain
1792—Daniel Mendoza
1795—John Jackson (retired)
1802—Jem Belcher
1805—Henry Pearce (Game Chicken)
1808—John Gully (declined title)
1809—Tom Cribb received belt, not transferable, and cup.
1824—Tom Spring received four cups; resigned title.
1825—Jem Ward received belt, not transferable.
1838—James (Deaf) Burke claimed title.
1839—William Thompson (Bendigo) beat Burke; claimed championship; received belt from Jem Ward.
1841—Nick Ward (Jem's brother) beat Ben Caunt, Feb. 2. In return match Caunt beat Nick Ward and received belt by subscription. It was transferable.
1845—Thompson beat Caunt and got belt.
1850—Bill Perry (The Tipton Slasher), after fight with Paddock, claimed title.
1851—Harry Broome won title from Perry.
1853—Perry claimed title when Broome forfeited £200 to him in a match; retired from ring on Aug. 13.
1857—Tom Sayers beat Perry for £200 a side and new belt.
1860—Sayers retired after 42-round draw with John C. Heenan (The Benicia Boy), leaving old belt open for competition.
1860—Sam Hurst (The Stalybridge Infant) beat Paddock and received belt.
1861—Jem Mace beat Hurst.
1862—Mace beat Tom King for £200 a side and the belt.
1862—King beat Mace and claimed belt. Subsequently gave it up. Declined to meet Mace again. Mace claimed belt.
1863—King beat Heenan for £1,000 a side.
1865—Joe Wormald beat Andrew Marsden for £200 a side and belt, which had been claimed by both. Belt was given to Wormald, who forfeited £120 to Mace.
1866—Mace and Joe Goss fought draw with £200 a side and belt at stake.
1867—Wormald received £200 forfeit from Ned O'Baldwin and claimed belt when O'Baldwin failed to appear at starting place.
1867—Mace and O'Baldwin drew; £200 a side; title and belt in abeyance.
1868—Wormald and O'Baldwin drew; £200 a side and title in America.
1869—Mike McCoole beat Tom Allen in America for world championship.
1870—Mace beat Allen in America for world championship.
1871—Mace and Joe Coburn fought draw for championship; £500 a side.
1882—John L. Sullivan defeated Paddy Ryan for American championship only; 9 rounds, Mississippi City, Miss. (London Prize Ring rules).
1885—Jem Smith beat Jack Davis for £100 a side and championship of England.
1887—Jake Kilrain and Jem Smith drew; $10,000 and Police Gazette Championship of World belt.
1889—Jonn L. Sullivan beat Jake Kilrain, 75 rounds, Richburg, Miss., July 8, in last bare-knuckle championship fight; $10,000 a side and Police Gazette Belt. (Sullivan claimed world title because of draw fought by Kilrain with Smith, England's titleholder.)

Other World Boxing Titleholders

LIGHT HEAVYWEIGHT CHAMPIONS

1903 —Jack Root, George Gardner
1903–05—Bob Fitzsimmons
1905–12—Philadelphia Jack O'Brien
1912–16—Jack Dillon
1916–20—Battling Levinsky
1920–22—Georges Carpentier
1923 —Battling Siki
1923–25—Mike McTigue
1925–26—Paul Berlenbach
1926–27—Jack Delaney (a)
1927 —Mike McTigue
1927–29—Tommy Loughran (a)
1930–34—Maxie Rosenbloom
1934–35—Bob Olin
1935–39—John Henry Lewis (a)
1939 —Melio Bettina
1939–41—Billy Conn (a)
1941–48—Gus Lesnevich
1948–50—Freddie Mills
1950–53—Joey Maxim
1953 —Archie Moore

(a)Abandoned title.

MIDDLEWEIGHT CHAMPIONS

1867–72—Tom Chandler (bare knuckles).
1872–81—Geo. Rourke (bare knuckles and gloves)
1881–82—Mike Donovan (r)
1884–91—Jack (Nonpareil) Dempsey
1891–97—Bob Fitzsimmons
1897–1907—Tommy Ryan, Kid McCoy, Philadelphia Jack O'Brien (t)
1907–08—Stanley Ketchel
1908 —Billy Papke
1908–10—Stanley Ketchel
1910–13—Billy Papke
1913 —Frank K'aus
1913–14—George Chip
1914–17—Al McCoy
1917–20—Mike O'Dowd
1920–23—Johnny Wilson
1923–26—Harry Greb
1926 —Tiger Flowers
1926–31—Mickey Walker (a)
1931–32—Gorilla Jones (NBA); Ben Jeby (N. Y. Comm.)
1932–37—Marcel Thil*
1938 —Al Hostak and Solly Krieger (NBA)
1939 —Solly Krieger, Al Hostak (NBA); Ceferino Garcia (N. Y. Comm.)
1940 —Tony Zale (NBA); Ken Overlin (N. Y. Comm.)
1941 —Tony Zale (NBA); Billy Soose (N. Y. Comm.)†
1941–47—Tony Zale
1947–48—Rocky Graziano
1948 —Tony Zale
1948–49—Marcel Cerdan
1949–51—Jake La Motta
1951 —Ray Robinson, Randy Turpin
1951–52—Ray Robinson (r)
1953 —Carl Olson

(r)Retired. (t)Title claimants. (a)Abandoned title. * Thil's victory on a foul over Jones gave him a clear title claim, but the New York Commission withheld recognition. At various times during the 1932–37 period, championship recognition by the different bodies was given to the following: Ben Jeby, Lou Brouillard, Vince Dundee, Teddy Yarosz, Babe Risko, and Freddy Steele. Fred Apostoli knocked out Thil in 10 rounds at the Polo Grounds, Sept. 23, 1937, but did not claim the title because of an agreement made with Thil. This was Thil's last fight. † Soose abandoned his claim to the title and Zale became the undisputed champion by defeating Georgie Abrams, who had beaten Soose three times.

WELTERWEIGHT CHAMPIONS

1892–94—Mysterious Billy Smith
1894–96—Tommy Ryan
1896 —Kid McCoy (o)
1900 —Rube Ferns, Matty Matthews
1901 —Rube Ferns
1901–06—Joe Walcott*
1906–07—Honey Mellody
1907 —Mike (Twin) Sullivan†
1915 —Ted Lewis‡
1919–22—Jack Britton
1922–26—Mickey Walker
1926–27—Pete Latzo
1927–29—Joe Dundee
1929–30—Jackie Fields
1930 —Young Jack Thompson
1930–31—Tommy Freeman
1931 —Young Jack Thompson
1931–32—Lou Brouillard
1932–33—Jackie Fields
1933 —Young Corbett 3d
1933–34—Jimmy McLarnin
1934 —Barney Ross
1934–35—Jimmy McLarnin
1935–38—Barney Ross
1938–40—Henry Armstrong
1940–41—Fritzie Zivic
1941–46—Freddie Cochrane
1946–47—Marty Servo (r)
1947–51—Ray Robinson (a)
1951 —Johnny Bratton (NBA)
1951–54—Kid Gavilan
1954–55—Johnny Saxton
1955 —Tony DeMarco
1955 —Carmen Basilio

(o)Outgrew class. * Walcott lost on foul to Dixie Kid in 1904, but decision was disputed. Dixie Kid went abroad, outgrew class, and Walcott was again recognized as the champion. † Sullivan outgrew class. The title was claimed by Jimmy Gardner, Jimmy Clabby, Ray Bronson, Clarence (Kid) Ferns, Mike Gibbons, Kid Graves, Mike Glover, Ted Lewis, and Jack Britton but no one received recognition as titleholder until Ted Lewis established his claim in 1915. ‡ Lewis outpointed Britton to gain undisputed possession of the crown on Aug. 31, 1915, and fought Britton a number of times over a period of four years with varying results until March 17, 1919, when Britton became the undisputed titleholder by knocking out Lewis. (r)Retired. (a) Abandoned title.

LIGHTWEIGHT CHAMPIONS

1885–96—Jack McAuliffe*
1896–99—Kid Lavigne
1899–02—Frank Erne
1902–08—Joe Gans
1908–10—Battling Nelson
1910–12—Ad Wolgast
1912–14—Willie Ritchie
1914–17—Freddy Welsh
1917–25—Benny Leonard (r)
1925 —Jimmy Goodrich
1925–26—Rocky Kansas
1926–30—Sammy Mandell
1930 —Al Singer
1930–33—Tony Canzoneri
1933–35—Barney Ross
1935–36—Tony Canzoneri
1936–38—Lou Ambers
1938–39—Henry Armstrong
1939–40—Lou Ambers
1940–41—Lew Jenkins
1941–42—Sammy Angott†
1943 —Beau Jack, Bob Montgomery (N. Y. Comm.), Sammy Angott (NBA).
1944 —Beau Jack, Bob Montgomery (N. Y. Comm.), Sammy Angott, Juan Zurita (NBA).
1945 —Bob Montgomery (N. Y. Comm.), Juan Zurita, Ike Williams (NBA).
1946–47—Bob Montgomery (N. Y. Comm.), Ike Williams (NBA).
1947–51—Ike Williams
1951–52—James Carter
1952 —Lauro Salas
1952–54—James Carter
1954 —Paddy DeMarco
1954–55—James Carter
1955 —Wallace (Bud) Smith

*** McAuliffe was champion of America, but never held the world crown, his battle for the world title with Jem Carney of England in 1887 resulting in a 74-round draw. (r)Retired. † Angott announced his retirement on Nov. 13, 1942, leaving the title vacant, but approximately two months later announced his comeback as challenger for the crown.**

FEATHERWEIGHT CHAMPIONS

1889 —Freddy Bogan
1890 —Billy Murphy
1892–1900—George Dixon
1900–01—Terry McGovern
1901 —Young Corbett (o)
1904–08—Brooklyn Tommy Sullivan
1908–12—Abe Attell
1912–23—Johnny Kilbane
1923 —Eugene Criqui
1923–25—Johnny Dundee (o)
1925–27—Louis (Kid) Kaplan (o)
1927–28—Benny Bass
1928 —Tony Canzoneri
1928–29—Andre Routis
1929–32—Battling Battalino (o)
1932 —Tommy Paul (NBA); Kid Chocolate (N. Y. Comm.).
1933–36—Freddie Miller
1936–37—Petey Sarron
1937–38—Henry Armstrong (a)
1938–40—Joey Archibald
1940–41—Harry Jeffra, Joey Archibald
1941–42—Chalky Wright
1942–48—Willie Pep
1948–49—Sandy Saddler
1949–50—Willie Pep
1950 —Sandy Saddler

(o)Outgrew class. (a)Abandoned title.

BANTAMWEIGHT CHAMPIONS

1890–92—George Dixon (o)
1894–99—Jimmy Barry (r)
1899–1900—Terry McGovern (o)
1901 —Harry Harris (o)
1902–03—Harry Forbes
1903–04—Frankie Neil
1904 —Joe Bowker (o)
1905–07—Jimmy Walsh (o)
1910–14—Johnny Coulon
1914–17—Kid Williams
1917–20—Pete Herman
1920–21—Joe Lynch
1921 —Pete Herman
1921–22—Johnny Buff
1922–24—Joe Lynch
1924 —Abe Goldstein
1924–25—Eddie (Cannonball) Martin
1925 —Charlie (Phil) Rosenberg (d)
1929–35—Al Brown
1935–36—Baltazar Sangchili
1936 —Tony Marino
1936–37—Sixto Escobar
1937–38—Harry Jeffra
1938–40—Sixto Escobar (r)
1940–42—Lou Salica
1942–47—Manuel Ortiz
1947 —Harold Dade
1947–50—Manuel Ortiz
1950–52—Vic Toweel
1952–54—Jimmy Carruthers (r)
1954 —Robert Cohen

(o)Outgrew class. (r)Retired. (d)Deprived of title when unable to make weight for championship bout.

FLYWEIGHT CHAMPIONS

1916–23—Jimmy Wilde
1923–25—Pancho Villa*
1925 —Frankie Genaro
1925–27—Fidel La Barba (r)
1927 —Corporal Izzy Schwartz†
1930 —Midget Wolgast (N. Y. Comm.); Frankie Genaro (NBA).
1931–32—Young Perez‡
1932–35—Jackie Brown
1935–38—Benny Lynch (r)
1939 —Peter Kane (a)
1943–47—Jackie Paterson (d)
1947–50—Rinty Monaghan (r)
1950 —Terry Allen
1950–52—Dado Marino
1952–54—Yoshio Shirai
1954 —Pascual Perez

* Villa died in 1925, Genaro claiming title. † Schwartz was recognized as champion by N. Y. Comm., but conditions in the class became confused and were not straightened out until an elimination tourney was held in November, 1929. ‡ Perez was recognized as world's champion by the International Boxing Union of Europe. (r)Retired. (a)Abandoned title. (d)Deprived of title.

Famous Firsts in Boxing

First modern ring champion: Jim Figg of England, 1719.

First set of boxing rules and first set of boxing gloves: Made by Jack Broughton, 1743.

First championship fight in America: Jacob Hyer beat Tom Beasley, 1816.

First glove fight: Between two English boxers, at Aix-la-Chapelle, France, October 8, 1818.

First contest in which motion pictures were filmed for general display to the public: Bob Fitzsimmons *vs.* Jim Corbett bout at Carson City, Nevada, 1897.

First million-dollar gate: Jack Dempsey *vs.* Georges Carpentier at Boyle's Thirty Acres, Jersey City, N. J., July 2, 1921 ($1,789,238).

First round-by-round fight broadcast: Dempsey *vs.* Carpentier, 1921, J. Andrew White announcer.

First fight to draw over 100,000 people: Jack Dempsey *vs.* Gene Tunney at Philadelphia, 1926 (120,757).

First fight on television (publicly screened): Eric Boon *vs.* Arthur Danahar, Harringay Arena, London, England, February 23, 1939.

Neil Memorial Award Winners

The Edward J. Neil Memorial Plaque was presented annually by the Boxing Writers' Association of New York to the individual who had done the most to further the cause of the sport. The award now goes to the "fighter of the year."

1938 Jack Dempsey
1939 Billy Conn
1940 Henry Armstrong
1941 Joe Louis
1942 Sgt. Barney Ross
1943 All U. S. boxers in service
1944 Lt. Comdr. Benny Leonard, U.S.M.S.
1945 James J. Walker
1946 Tony Zale
1947 Gus Lesnevich
1948 Ike Williams
1949 Ezzard Charles
1950 Ray Robinson
1951 Joe Walcott
1952 Rocky Marciano
1953 Kid Gavilan
1954 Carl Olson

Joe Louis' Title Fights

1937		
June 22	James J. Braddock, Chicago	KO 8
	(Won heavyweight championship of the world)	
Aug. 30	Tommy Farr, Yankee Stadium	W 15
1938		
Feb. 23	Nathan Mann, Madison Square Garden	KO 3
Apr. 1	Harry Thomas, Chicago	KO 5
June 22	Max Schmeling, Yankee Stadium	KO 1
1939		
Jan. 25	John Henry Lewis, Madison Sq. Garden	KO 1
Apr. 17	Jack Roper, Los Angeles	KO 1
June 28	Tony Galento, Yankee Stadium	KO 4
Sept. 20	Bob Pastor, Detroit	KO 11
1940		
Feb. 9	Arturo Godoy, Madison Square Garden	W 15
Mar. 29	Johnny Paychek, Madison Square Garden	KO 2
June 20	Arturo Godoy, Yankee Stadium	KO 8
Dec. 16	Al McCoy, Boston	KO 6
1941		
Jan. 31	Red Burman, Madison Square Garden	KO 5
Feb. 17	Gus Dorazio, Philadelphia	KO 2
Mar. 21	Abe Simon, Detroit	KO 13
Apr. 8	Tony Musto, St. Louis	KO 9
May 23	Buddy Baer, Washington, D. C.	W disq. 7
June 18	Billy Conn, Polo Grounds	KO 13
Sept. 29	Lou Nova, Polo Grounds	KO 6
1942		
Jan. 9	Buddy Baer, Madison Square Garden	KO 1
Mar. 27	Abe Simon, Madison Square Garden	KO 6
1946		
June 19	Billy Conn, Yankee Stadium	KO 8
Sept. 18	Tami Mauriello, Yankee Stadium	KO 1
1947		
Dec. 5	Joe Walcott, Madison Square Garden	W 15
1948		
June 25	Joe Walcott, Yankee Stadium	KO 11
1950		
Sept. 27	Ezzard Charles, Yankee Stadium	L 15

PROFESSIONAL WEIGHT LIMITS

	lbs.
Flyweight	112
Bantamweight	118
Featherweight	126
Lightweight	135
Welterweight	147
Middleweight	160
Light heavyweight	175
Heavyweight	over 175

BADMINTON

Source: John E. Garrod, American Badminton Association.

United States Champions

Men's Singles	Year	Men's Doubles
Walter R. Kramer, Detroit, Mich.	1937	Chester Goss—Donald Eversoll, Los Angeles, Calif.
Walter R. Kramer, Detroit, Mich.	1938	Hamilton Law—Richard Yeager, Seattle, Wash.
David G. Freeman, Pasadena, Calif.	1939	Hamilton Law—Richard Yeager, Seattle, Wash.
David G. Freeman, Pasadena, Calif.	1940	Chester Goss—David G. Freeman, Pasadena, Calif.
David G. Freeman, Pasadena, Calif.	1941	Chester Goss—David G. Freeman, Pasadena, Calif.
David G. Freeman, Pasadena, Calif.	1942	Chester Goss—David G. Freeman, Pasadena, Calif.
David G. Freeman, Pasadena, Calif.	1947	D. G. Freeman—Webster Kimball, Pasadena, Calif.
David G. Freeman, Pasadena, Calif.	1948	Wynn Rogers, Areadia, Calif.—D. G. Freeman.
Marten Mendez, San Diego, Calif.	1949	Barney McCay, Pasadena—Wynn Rogers, Areadia.
Marten Mendez, San Diego, Calif.	1950	Barney McCay, Pasadena—Wynn Rogers, Areadia.
Joseph Alston, San Diego, Calif.	1951	Wynn Rogers, Arcadia—Joseph Alston
Marten Mendez, San Diego, Calif.	1952	Joseph Alston, Fargo, N. D.—Wynn Rogers
David G. Freeman, Pasadena, Calif.	1953	Joseph Alston, Detroit—Wynn Rogers
Eddy Choong, Malaya	1954	Ooi Teik Hock—Ong Poh Lim, Malaya

Women's Singles	Year	Women's Doubles
Mrs. Del Barkhuff, Seattle, Wash.	1937	Mrs. Del Barkhuff—Zoe G. Smith, Seattle, Wash.
Mrs. Del Barkhuff, Seattle, Wash.	1938	Mrs. Roy C. Bergman—Helen Gibson, Westport, Conn.
Mary E. Whittemore, Boston, Mass.	1939	Mrs. Del Barkhuff—Zoe G. Smith, Seattle, Wash.
Evelyn Boldrick, San Diego, Calif.	1940	Elizabeth Anselm—Helen Zabriskie, Oakland, Calif.
Thelma Kingsbury, Oakland, Calif.	1941	Thelma Kingsbury—Janet Wright, Oakland, Calif.
Evelyn Boldrick, San Diego, Calif.	1942	Evelyn Boldrick, San Diego—Janet Wright, Oakland, Calif.
Ethel Marshall, Buffalo, N. Y.	1947	Thelma K. Scovil—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y.	1948	Thelma K. Scovil—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y.	1949	Thelma K. Scovil—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y.	1950	Thelma K. Scovil—Janet Wright, San Francisco.
Ethel Marshall, Buffalo, N. Y.	1951	Dottie Hann, Manhattan Beach, Calif.—Mrs. L. M. Smith
Ethel Marshall, Buffalo, N. Y.	1952	Ethel Marshall—Beatrice Massman, Buffalo, N. Y.
Ethel Marshall, Buffalo, N. Y.	1953	Judith Devlin—Susan Devlin, Baltimore
Judith Devlin, Baltimore	1954	Judith Devlin—Susan Devlin, Baltimore

Rindge Tech Track Victor

Rindge Technical High of Cambridge, Mass., with 10 points, captured the National A.A.U. interscholastic track and field championship in 1955. The event was held in Madison Square Garden, New York.

FOOTBALL

THE PASTIME of kicking a ball around goes back beyond the limits of recorded history. Ancient savage tribes played football of a primitive kind. There was a ball-kicking game played by Athenians and Spartans and Corinthians 2500 years ago and the Greeks had a name for it: *Episkuros*. The Romans had a somewhat similar game called *Harpastum* and are supposed to have carried the game with them when they invaded the British Isles in the First Century, B.C.

Undoubtedly the game known in the United States as Football traces directly to the English game of Rugby, though the modifications have been many and rather sweeping in some directions. There was informal football on our college lawns well over a century ago and an annual Freshman-Sophomore series of "scrimmages" began at Yale in 1840. But the first formal intercollegiate football game in this country was the Princeton-Rutgers contest played at New Brunswick, N. J., on Nov. 6, 1869, with Rutgers winning by 6 goals to 4. Columbia took to the intercollegiate football field in 1870 and Yale in 1872. Soon many colleges were playing football in the autumn.

In those old days games were played with twenty-five, twenty, fifteen or eleven men on a side by mutual agreement. In 1880 there was a football convention at which Walter Camp of Yale persuaded the delegates to agree to a rule calling for eleven players on a side. In 1882 there was adopted the rule requiring the offensive team to make 5 yards in three downs or surrender the ball to its opponents. The game grew so rough that it was attacked as brutal by many critics and some colleges abandoned the sport. Conditions were so bad in 1906 that President Theodore Roosevelt, an enthusiast for all sports, called a meeting of Yale, Harvard and Princeton representatives at the White House in the hope of reforming and improving the game. The outcome was that the game, with the forward pass introduced and some other modifications of the rules inserted, became faster and cleaner and gradually grew to the tremendous popularity it enjoys today.

Professional football, now firmly established, is an outgrowth of intercollegiate football. The first professional game was played in 1895 at Latrobe, Pa. The National Football League was founded in 1921. The All-America Conference went into action in 1946. At the end of the 1949 season the two major play-for-pay circuits merged, retaining the name of the older league.

RECORD OF ANNUAL POSTSEASON GAMES

Source: Official N.C.A.A. Football Guide

Rose Bowl (Pasadena, Calif.)

1902 Michigan 49, Stanford 0
1916 Washington State 14, Brown 0
1917 Oregon 14, Pennsylvania 0
1918 Mare Island Marines 19, Camp Lewis 7
1919 Great Lakes 17, Mare Island Marines 0
1920 Harvard 7, Oregon 6
1921 California 28, Ohio State 0
1922 Washington & Jefferson 0, California 0
1923 Southern California 14, Penn State 3
1924 Navy 14, Washington 14
1925 Notre Dame 27, Stanford 10
1926 Alabama 20, Washington 19
1927 Alabama 7, Stanford 7
1928 Stanford 7, Pittsburgh 6
1929 Georgia Tech 8, California 7
1930 Southern California 47, Pittsburgh 14
1931 Alabama 24, Washington State 0
1932 Southern California 21, Tulane 12
1933 Southern California 35, Pittsburgh 0
1934 Columbia 7, Stanford 0
1935 Alabama 29, Stanford 13
1936 Stanford 7, Southern Methodist 0
1937 Pittsburgh 21, Washington 0
1938 California 13, Alabama 0
1939 Southern California 7, Duke 3
1940 Southern California 14, Tennessee 0
1941 Stanford 21, Nebraska 13
1942 Oregon State 20, Duke 16*
1943 Georgia 9, U. C. L. A. 0
1944 Southern California 29, Washington 0
1945 Southern California 25, Tennessee 0
1946 Alabama 34, Southern California 14
1947 Illinois 45, U. C. L. A. 14
1948 Michigan 49, Southern California 0
1949 Northwestern 20, California 14
1950 Ohio State 17, California 14
1951 Michigan 14, California 6
1952 Illinois 40, Stanford 7
1953 Southern California 7, Wisconsin 0
1954 Michigan State 28, U. C. L. A. 20
1955 Ohio State 20, Southern California 7

* Played at Durham, N. C.

All-Stars Defeat Browns

Tad Weed of Ohio State kicked a 34-yard field goal to give the collegians a 30-27 victory over the Cleveland Browns in the 1955 All-Star football game at Chicago. Ralph Guglielmi of Notre Dame, an All-Star quarterback, was voted the game's most valuable player.

Sugar Bowl (New Orleans, La.)

1935 Tulane 20, Temple 14
1936 Texas Christian 3, Louisiana State 2
1937 Santa Clara 21, Louisiana State 14
1938 Santa Clara 6, Louisiana State 0
1939 Texas Christian 15, Carnegie Tech 7
1940 Texas A & M 14, Tulane 13
1941 Boston College 19, Tennessee 13
1942 Fordham 2, Missouri 0
1943 Tennessee 14, Tulsa 7
1944 Georgia Tech 20, Tulsa 18
1945 Duke 29, Alabama 26
1946 Oklahoma A & M 33, St. Mary's (Calif.) 13
1947 Georgia 20, North Carolina 10
1948 Texas 27, Alabama 7
1949 Oklahoma 14, North Carolina 6
1950 Oklahoma 35, Louisiana State 0
1951 Kentucky 13, Oklahoma 7
1952 Maryland 28, Tennessee 13
1953 Georgia Tech 24, Mississippi 7
1954 Georgia Tech 42, West Virginia 19
1955 Navy 21, Mississippi 0

Cotton Bowl (Dallas, Tex.)

1937 Texas Christian 16, Marquette 6
1938 Rice 28, Colorado 14
1939 St. Mary's (Calif.) 20, Texas Tech 13
1940 Clemson 6, Boston College 3
1941 Texas A & M 13, Fordham 12
1942 Alabama 29, Texas A & M 21
1943 Texas 14, Georgia Tech 7
1944 Randolph Field 7, Texas 7
1945 Oklahoma A & M 34, Texas Christian 0
1946 Texas 40, Missouri 27
1947 Louisiana State 0, Arkansas 0
1948 Southern Methodist 13, Penn State 13
1949 Southern Methodist 21, Oregon 13
1950 Rice 27, North Carolina 13
1951 Tennessee 20, Texas 14
1952 Kentucky 20, Texas Christian 7
1953 Texas 16, Tennessee 0
1954 Rice 28, Alabama 6
1955 Georgia Tech 14, Arkansas 6

Orange Bowl (Miami, Fla.)

1933 Miami 7, Manhattan 0
1934 Duquesne 33, Miami 7
1935 Bucknell 26, Miami 0
1936 Catholic University 20, Mississippi 19
1937 Duquesne 13, Mississippi State 12
1938 Alabama Poly. 6, Michigan State 0
1939 Tennessee 17, Oklahoma 0
1940 Georgia Tech 21, Missouri 7
1941 Mississippi State 14, Georgetown 7
1942 Georgia 40, Texas Christian 26
1943 Alabama 37, Boston College 21
1944 Louisiana State 19, Texas A & M 14
1945 Tulsa 26, Georgia Tech 12
1946 Miami 13, Holy Cross 6
1947 Rice 8, Tennessee 0
1948 Georgia Tech 20, Kansas 14
1949 Texas 41, Georgia 28
1950 Santa Clara 21, Kentucky 13
1951 Clemson 15, Miami (Fla.) 14
1952 Georgia Tech 17, Baylor 14
1953 Alabama 61, Syracuse 6
1954 Oklahoma 7, Maryland 0
1955 Duke 36, Nebraska 7

Famous Series Records

Year	Harv.-Yale		Yale-Prin.		Harv.-Prin.		Army-Navy	
1890	12	6	32	0	..	..	0	24
1891	0	10	19	0	..	..	32	16
1892	0	6	12	0	..	..	4	12
1893	0	6	0	6	..	..	4	6
1894	4	12	24	0	..	..	..	..
1895	..	..	20	10	4	12	..	..
1896	..	..	6	24	0	12	..	..
1897	0	0	6	0	..	..	..	..
1898	17	0	0	6	..	..	..	..
1899	0	0	10	11	..	..	17	5
1900	0	28	29	5	..	..	7	11
1901	22	0	12	0	..	..	11	5
1902	0	23	12	5	..	..	22	8
1903	0	16	6	11	..	..	40	5
1904	0	12	12	0	..	..	11	0
1905	0	6	23	4	..	..	6	6
1906	0	6	0	0	..	..	0	10
1907	0	12	12	10	..	..	0	6
1908	4	0	11	6	..	..	6	4
1909	0	8	17	0	..	..	..	..
1910	0	0	5	3	..	..	0	3
1911	0	0	3	6	6	8	0	3
1912	20	0	6	6	16	6	0	6
1913	15	5	3	3	3	0	22	9
1914	36	0	19	14	20	0	20	0
1915	41	0	13	7	10	6	14	0
1916	3	6	10	0	3	0	15	7
1919	10	3	6	13	10	10	0	6
1920	9	0	0	20	14	14	0	7
1921	10	3	13	7	3	10	0	7
1922	10	3	0	3	3	10	17	14
1923	0	13	27	0	5	0	0	0
1924	6	19	10	0	0	34	12	0
1925	0	0	12	25	0	36	10	3
1926	7	12	7	10	0	12	21	21
1927	0	14	14	6	..	..	14	9
1928	17	0	2	12	..	..	..	..
1929	10	6	13	0	..	..	..	..
1930	13	0	10	7	..	..	6	0
1931	0	3	51	14	..	..	17	7
1932	0	19	7	7	..	..	20	0
1933	19	6	2	27	..	..	12	7
1934	0	14	7	0	0	19	0	3
1935	7	14	7	38	0	35	28	6
1936	13	14	26	23	14	14	0	7
1937	13	6	26	0	34	6	6	0
1938	7	0	7	20	26	7	14	7
1939	7	20	7	13	6	9	0	10
1940	28	0	7	10	0	0	0	14
1941	14	0	6	20	6	4	6	14
1942	3	7	13	6	19	14	0	14
1943	..	..	27	6	..	..	0	13
1944	..	..	..	..	..	..	23	7
1945	0	28	20	14	..	..	32	13
1946	14	27	30	2	13	12	21	18
1947	21	31	0	17	7	33	21	0
1948	20	7	14	20	7	47	21	21
1949	6	29	13	21	13	33	38	0
1950	6	14	12	47	26	63	2	14
1951	21	21	0	27	13	54	7	42
1952	14	41	21	27	21	41	0	7
1953	13	0	26	24	0	6	20	7
1954	13	9	14	21	14	9	20	27

Professional Football

NATIONAL LEAGUE CHAMPIONS

Year	Team	Won	Lost	Tied	Pct.	Year	Team	Won	Lost	Tied	Pct.
1921	Bears (Staley's)	10	1	1	.909	1941	*Chicago Bears (W)	10	1	0	.909
1922	Canton Bulldogs	10	0	2	1.000	1941	New York Giants (E)	8	3	0	.727
1923	Canton Bulldogs	11	0	1	1.000	1942	*Washington Redskins (E)	10	1	0	.909
1924	Cleveland Bulldogs	7	1	1	.875	1942	Chicago Bears (W)	11	0	0	1.000
1925	Chicago Cardinals	11	2	1	.846	1943	*Chicago Bears (W)	8	1	1	.889
1926	Frankford Yellow Jackets	14	1	1	.933	1943	Washington Redskins (E)	6	3	1	.667
1927	New York Giants	11	1	1	.917	1944	*Green Bay Packers (W)	8	2	0	.800
1928	Providence Steamrollers	8	1	2	.888	1944	New York Giants (E)	8	1	1	.889
1929	Green Bay Packers	12	0	1	1.000	1945	*Cleveland Rams (W)	9	1	0	.900
1930	Green Bay Packers	11	3	1	.786	1945	Washington Redskins (E)	8	2	0	.800
1931	Green Bay Packers	12	2	0	.857	1946	*Chicago Bears (W)	8	2	1	.800
1932	Chicago Bears	7	1	6	.875	1946	New York Giants (E)	7	3	1	.700
1933	*Chicago Bears (W)	10	2	1	.833	1947	*Chicago Cardinals (W)	9	3	0	.750
1933	New York Giants (E)	11	3	0	.786	1947	Philadelphia Eagles (E)	9	4	0	.692
1934	*New York Giants (E)	8	5	0	.615	1948	*Philadelphia Eagles (E)	9	2	1	.818
1934	Chicago Bears (W)	13	0	0	1.000	1948	Chicago Cardinals (W)	11	1	0	.917
1935	*Detroit Lions (W)	7	3	2	.700	1949	*Philadelphia Eagles (E)	11	1	0	.917
1935	New York Giants (E)	9	3	0	.750	1949	Los Angeles Rams (W)	8	2	2	.800
1936	*Green Bay Packers (W)	10	1	1	.909	1950	*Cleveland Browns (A)	11	2	0	.846
1936	Boston Redskins (E)	7	5	0	.587	1950	Los Angeles Rams (N)	10	3	0	.769
1937	*Washington Redskins (E)	8	3	0	.727	1951	*Los Angeles Rams (N)	8	4	0	.667
1937	Chicago Bears (W)	9	1	1	.900	1951	Cleveland Browns (A)	11	1	0	.917
1938	*New York Giants (E)	8	2	1	.800	1952	*Detroit Lions (N)	9	3	0	.750
1938	Green Bay Packers (W)	8	3	0	.727	1952	Cleveland Browns (A)	8	4	0	.667
1939	*Green Bay Packers (W)	9	2	0	.818	1953	*Detroit Lions (W)	10	2	0	.833
1939	New York Giants (E)	9	1	1	.900	1953	Cleveland Browns (E)	11	1	0	.917
1940	*Chicago Bears (W)	8	3	0	.727	1954	*Cleveland Browns (E)	9	3	0	.750
1940	Washington Redskins (E)	9	2	0	.818	1954	Detroit Lions (W)	9	2	1	.818

* Won title play-off. (W) Western Division champion. (E) Eastern Division champion. League divided into American (A) and National (N) conferences in 1950. In 1953 the league returned to the Eastern-Western set-up

CHAMPIONSHIP PLAY-OFF RESULTS

1933 Chicago Bears 23, New York 21.
1934 New York 30, Chicago Bears 13.
1935 Detroit 26, New York 7.
1936 Green Bay 21, Boston 6.
1937 Washington 28, Chicago Bears 21.
1938 New York 23, Green Bay Packers 17.
1939 Green Bay 27, New York 0.
1940 Chicago Bears 73, Washington 0.
1941 Chicago Bears 37, New York 9.
1942 Washington 14, Chicago Bears 6.
1943 Chicago Bears 41, Washington 21.
1944 Green Bay 14, New York 7.
1945 Cleveland 15, Washington 14.
1946 Chicago Bears 24, New York 14.
1947 Chicago Cardinals 28, Philadelphia 21.
1948 Philadelphia 7, Chicago Cardinals 0.
1949 Philadelphia 14, Los Angeles 0.
1950 Cleveland 30, Los Angeles 28.
1951 Los Angeles 24, Cleveland 17.
1952 Detroit 17, Cleveland 7.
1953 Detroit 17, Cleveland 16.
1954 Cleveland 56, Detroit 10.

CHESS

Source: American Chess Bulletin of New York.

World Champions

1851–58	Adolph Anderssen, Breslau, Germany
1858–62	Paul Morphy, New Orleans, La.
1862–66	Adolf Anderssen, Breslau, Germany
1866–94	William Steinitz, Vienna, Austria
1894–1921	Emanuel Lasker, Berlin, Germany
1921–27	Jose R. Capablanca, Havana, Cuba
1927–35	Alexander A. Alekhine, Moscow, Russia
1935–37	Dr. Max Euwe, Amsterdam, the Netherlands
1937–46	Alexander A. Alekhine, Moscow, Russia*
1948–	Mikhail Botvinnik, Leningrad, Russia

* Alekhine, a French citizen, died on March 23, 1946.

United States Champions

1852–62	Paul Morphy, New Orleans, La.
1871–87	George H. Mackenzie, New York
1887–92	Max Judd, St. Louis, Mo.
1892–94	Simon Lipschuetz, New York
1894	Jackson W. Showalter, Georgetown, Ky.
1894	Albert B. Hodges, Staten Island, N. Y.*
1894–97	Jackson W. Showalter, Georgetown, Ky.
1897–1906	Harry Nelson Pillsbury, Boston, Mass.
1906–09	Jackson W. Showalter, Georgetown, Ky.
1909–36	Frank J. Marshall, New York
1936–44	Samuel Reshevsky, New York†
1944–46	Arnold S. Denker, New York
1946	Samuel Reshevsky, Boston
1948	Herman Steiner, Los Angeles
1951	Larry Evans, New York
1954	Arthur Bisguier, New York

* Retired after winning return match with Showalter.

† In 1942, Isaac I. Kashdan of New York was co-champion for a while because of a tie with Reshevsky in that year's tournament. Reshevsky won the play-off.

LACROSSE

North-South Game Record

1940—North 6, South 5	1948—North 11, South 6
1941—South 7, North 6	1949—South 11, North 6
1942—North 6, South 3	1950—North 12, South 8
1943—South 9, North 5	1951—North 12, South 11
1944-45—No games	1952—South 15, North 7
1946—North 14, South 14	1953—South 12, North 9
1947—North 15, South 3	1954—North 13, South 11

ROWING

ROWING goes back so far in history that there is no possibility of tracing it to any particular aboriginal source. The oldest rowing race still on the calendar is the "Doggett's Coat and Badge" contest among professional watermen of the Thames (England) that began in 1715. The first Oxford-Cambridge race was held at Henley in 1829. Competitive rowing in the United States began with matches between boats rowed by professional oarsmen of the New York water front. They were oarsmen who rowed the small boats that plied as ferries from Manhattan Island to Brooklyn and return, or who rowed salesmen down the harbor to meet ships arriving from Europe. Since the first salesman to meet an incoming ship had some advantage over his rivals, there was keen competition in the bidding for fast boats and the best oarsmen. This gave rise to match races for a purse or a side bet on many occasions. The first of such races was held in June, 1811, in four-oared gigs.

Amateur boat clubs sprang up in the United States between 1820 and 1830 and seven students of Yale joined together to purchase a four-oared lap-streak gig in 1843. The first Harvard-Yale race was held Aug. 3, 1852, on Lake Winnepesaukee, N. H. The first time an American college crew went abroad was in 1869 when Harvard challenged Oxford and was defeated on the Thames. There were early college rowing races on Lake Quinsigamond, near Worcester, Mass., and on Saratoga Lake, N. Y., but the Intercollegiate Rowing Association, in 1895, settled on the Hudson, at Poughkeepsie, as the setting for the annual "Poughkeepsie Regatta." In 1950 the I.R.A. shifted its classic to Marietta, Ohio, and in 1952 it was moved to Syracuse, N. Y. The National Association of Amateur Oarsmen, organized in 1872, has conducted annual championship regattas since that time. The first rowing races were held with lap-streak gigs but shells came into general favor about a century ago. The outrigger was invented in 1830 by Clasper, an Englishman. Yale used the sliding seat in 1870.

Rowing Statistics

Source: From *American Rowing*, Copyright by Robert F. Kelley; courtesy of G. P. Putnam's Sons.

Yale-Harvard Varsity Race Record

Rowed at Centre Harbor, N. H., in 1852; Springfield, Mass., in 1855, 1872–73, 1876–77; Worcester, Mass., 1859 to 1870; Saratoga Lake, N. Y., 1874–75; New London, Conn., 1878 to 1895, 1898 to 1916, 1919 to 1941, and since 1947; triangular race at Poughkeepsie, N. Y., in 1897 with Cornell victor in 20:34; Derby, Conn., in 1918, 1942, and Boston, Mass., in 1946. Course was 2 miles in 1852; 3 miles from 1855 to 1875, and 4 miles thereafter.

Year	Winner	Time
1852	Harvard	[1]
1855	Harvard	22:00
1859	Harvard	19:18
1860	Harvard	18:53
1864	Yale	19:01
1865	Yale	18:42½
1866	Harvard	18:43¼
1867	Harvard	18:12¾
1868	Harvard	17:48½
1869	Harvard	18:02
1870	Harvard	20:30[2]
1872	Harvard	16:57
1873	Yale	16:59
1874[3]	Harvard	16:56
1875	Harvard	17:05
1876	Yale	22:02
1877	Harvard	24:36
1878	Harvard	20:44¾
1879	Harvard	22:15
1880	Yale	24:27
1881	Yale	22:13
1882	Harvard	20:47½
1883	Harvard	25:46½
1884	Yale	20:31
1885	Harvard	25:15½
1886	Yale	20:42
1887	Yale	22:56
1888	Yale	20:10
1889	Yale	21:30
1890	Yale	21:29
1891	Harvard	21:23
1892	Yale	20:48
1893	Yale	25:01½
1894	Yale	23:45½
1895	Yale	21:30
1897	Yale	20:44
1898	Yale	24:02
1899	Harvard	20:52½
1900	Yale	21:12⅘
1901	Yale	23:37
1902	Yale	20:20
1903	Yale	20:19⅘
1904	Yale	21:40½
1905	Yale	22:33½
1906	Harvard	23:02
1907	Yale	21:10
1908[4]	Harvard	24:10
1909	Harvard	21:50
1910	Harvard	20:46½
1911	Harvard	22:44
1912	Harvard	21:43½
1913	Harvard	21:42
1914	Yale	21:16
1915	Yale	20:52
1916	Harvard	20:02
1918[5]	Harvard	10:58
1919[6]	Yale	21:42⅘
1920	Harvard	23:11
1921	Yale	20:41
1922	Yale	21:53
1923	Yale	22:10
1924	Yale	21:58⅗
1925	Yale	20:26
1926	Yale	20:14⅗
1927	Harvard	22:35⅕
1928	Yale	20:21⅗
1929	Yale	21:20
1930	Yale	20:09⅗
1931	Harvard	22:21
1932	Harvard	21:29
1933	Harvard	22:46⅗
1934	Yale	19:51⅘
1935	Yale	20:19
1936	Harvard	20:19
1937	Harvard	20:02
1938	Harvard	20:20
1939	Harvard	20:48⅗
1940	Harvard	21:38
1941	Harvard	20:40
1942[7]	Harvard	10:09⅗
1946[8]	Harvard	9:18
1947	Harvard	20:40
1948[9]	Harvard	19:21⅗
1949[10]	Yale	19:52⅘
1950	Harvard	21:36⅗
1951	Harvard	21:26
1952	Yale	22:49
1953	Harvard	20:09
1954	Yale	21:58⅗

[1] Harvard won by 3 to 4 lengths. [2] Yale ran into Harvard at turn and was disqualified. [3] Yale did not finish, being disabled in collision. [4] Yale stroke taken from shell near 3-mile mark. [5] Race was informal; rowed at 2 miles on Housatonic. [6] Course was 110 feet less than 4 miles. [7] Rowed at 2 miles. [8] Rowed at 1¾ miles. [9] Both crews broke downstream record. [10] Both crews broke upstream record.

INTERCOLLEGIATE ROWING ASSOCIATION REGATTA

(Varsity eight-oared shells—4 miles)

Rowed on Saratoga Lake (3 miles) 1898. Rowed on Lake Cayuga, Ithaca, N. Y. (2 miles) 1920. Racing suspended in 1917, 1918, 1919, 1933, and 1942 to 1946, inclusive. Rowed at 3 miles from 1921 to 1924, inclusive, and since 1947. At Poughkeepsie, N. Y., in other years through 1949; at Marietta, Ohio (2 miles) 1950, 1951; at Syracuse, N. Y., since 1952.

Year	Time	First	Second	Third	Fourth	Fifth	Sixth
1895	21:25	Columbia	Cornell				
1896	19:59	Cornell	Harvard	Pennsylvania	Columbia		
1897	20:47 4/5	Cornell	Columbia				
1898	15:51 1/2	Pennsylvania	Cornell	Wisconsin	Columbia		
1899	20:4	Pennsylvania	Wisconsin	Cornell	Columbia		
1900	19:44 3/5	Pennsylvania	Wisconsin	Cornell	Columbia	Georgetown	
1901	18:53 1/5	Cornell	Columbia	Wisconsin	Georgetown	Syracuse	Pennsylvania
1902	19:5 3/5	Cornell	Wisconsin	Columbia	Pennsylvania	Syracuse	Georgetown
1903	18:57	Cornell	Georgetown	Wisconsin	Pennsylvania	Syracuse	Columbia
1904	20:22 3/5	Syracuse	Cornell	Pennsylvania	Columbia	Georgetown	Wisconsin
1905	20:29	Cornell	Syracuse	Georgetown	Columbia	Pennsylvania	Wisconsin
1906	19:36 4/5	Cornell	Pennsylvania	Syracuse	Wisconsin	Columbia	Georgetown
1907	20:2 2/5	Cornell	Columbia	Navy	Pennsylvania	Wisconsin	Georgetown
1908	19:24 1/5	Syracuse	Columbia	Cornell	Pennsylvania	Wisconsin	
1909	19:2	Cornell	Columbia	Syracuse	Wisconsin	Pennsylvania	
1910	20:42 1/5	Cornell	Pennsylvania	Columbia	Syracuse	Wisconsin	
1911	20:10 4/5	Cornell	Columbia	Pennsylvania	Wisconsin	Syracuse	
1912	19:31 2/5	Cornell	Wisconsin	Columbia	Syracuse	Pennsylvania	Stanford
1913	19:28 3/5	Syracuse	Cornell	Washington	Wisconsin	Columbia	Pennsylvania
1914	19:37 4/5	Columbia	Pennsylvania	Cornell	Syracuse	Washington	Wisconsin
1915	19:36 3/5	Cornell	Stanford	Syracuse	Columbia	Pennsylvania	
1916	20:15 2/5	Syracuse	Cornell	Columbia	Pennsylvania		
1920	11:2 3/5	Syracuse	Cornell	Columbia	Pennsylvania		
1921	14:7	Navy	California	Cornell	Pennsylvania	Syracuse	Columbia
1922*	13:33 3/5	Navy	Washington	Syracuse	Cornell	Columbia	Pennsylvania
1923	14:3 1/5	Washington	Navy	Columbia	Syracuse	Cornell	Pennsylvania
1924	15:2	Washington	Wisconsin	Cornell	Pennsylvania	Syracuse	Columbia
1925	19:24 4/5	Navy	Washington	Wisconsin	Pennsylvania	Cornell	Syracuse
1926	19:28 3/5	Washington	Navy	Syracuse	Pennsylvania	Columbia	California
1927	20:57	Columbia	Washington	California	Navy	Cornell	Syracuse
1928	18:35 4/5	California	Columbia	Washington	Cornell	Navy	Syracuse
1929	22:58	Columbia	Washington	Pennsylvania	Navy	Wisconsin	
1930	21:42	Cornell	Syracuse	M. I. T.	California	Columbia	Washington
1931	18:54 1/5	Navy	Cornell	Washington	California	Syracuse	Pennsylvania
1932	19:55	California	Cornell	Washington	Navy	Syracuse	Columbia
1934	19:44	California	Washington	Navy	Cornell	Pennsylvania	Syracuse
1935	18:52	California	Cornell	Washington	Navy	Syracuse	Pennsylvania
1936	19:9 3/5	Washington	California	Navy	Columbia	Cornell	Pennsylvania
1937	18:33 3/5	Washington	Navy	Cornell	Syracuse	California	Columbia
1938	18:19	Navy	California	Washington	Columbia	Wisconsin	Cornell
1939†	18:12 3/5	California	Washington	Navy	Cornell	Syracuse	Wisconsin
1940	22:42	Washington	Cornell	Syracuse	Navy	California	Columbia
1941	18:53 3/10	Washington	California	Cornell	Syracuse	Princeton	Wisconsin
1947	13:59 1/5	Navy	Cornell	Washington	California	Princeton	Syracuse
1948	14:06 2/5	Washington	California	Navy	Cornell	M. I. T.	Princeton
1949	14:42 3/5	California	Washington	Cornell	Navy	Princeton	Pennsylvania
1950	8:07.5	Washington	California	Wisconsin	Stanford	M. I. T.	Columbia
1951	7:50.5	Wisconsin	Washington	Princeton	California	Pennsylvania	M. I. T.
1952	15:08.1	Navy	Princeton	Cornell	Wisconsin	California	Columbia
1953	15:29.6	Navy	Cornell	Washington	Wisconsin	Columbia	California
1954	16:04.4	‡Navy	Cornell	Washington	Wisconsin	California	Columbia

* Record for three miles. † Record for four miles. ‡ Disqualified.

EVENTH—1925, Columbia; 1926, Wisconsin; 1927, Pennsylvania; 1928, Pennsylvania; 1930, Pennsylvania; 1931, Columbia; 1932, Pennsylvania; 1934, Columbia; 1935, Columbia; 1936, Syracuse; 1937, Wisconsin; 1938, Syracuse; 1939, Columbia; 1940, Wisconsin; 1941, Rutgers; 1947, Wisconsin; 1948, Pennsylvania; 1949, Wisconsin; 1950, Cornell; 1951, Stanford; 1952, Washington; 1953, Pennsylvania; 1954, Pennsylvania.

IGHTH—1926, Cornell; 1930, Wisconsin; 1931, Wisconsin; 1932, M.I.T.; 1940, Princeton; 1941, M. I. T.; 1947, M. I. T.; 1948, Wisconsin; 1949, Columbia; 1950, Pennsylvania; 1951, Cornell; 1952, Stanford; 1953, Princeton; 1954, Boston U.

NINTH—1931, M. I. T.; 1941, Columbia; 1947, Pennsylvania; 1948, Syracuse; 1949, Syracuse; 1950, Princeton; 1951, Syracuse; 1952, Pennsylvania; 1953, Syracuse; 1954, Princeton.

TENTH—1947, Rutgers; 1948, Columbia; 1949, Stanford; 1950, Syracuse; 1951, Boston U.; 1952, M. I. T.; 1953, M. I. T.; 1954, M. I. T.

ELEVENTH—1947, Columbia; 1948, Rutgers; 1949, M. I. T.; 1950, Rutgers; 1951, Columbia; 1952, Syracuse; 1953, Stanford; 1954, Syracuse.

TWELFTH—1949, Rutgers; 1950, Navy; 1951, Navy

SWAMPED—1895, Pennsylvania; 1897, Pennsylvania; 1907, Syracuse; 1929, M. I. T., Syracuse, California, Cornell; 1930, Navy.

SQUASH RACQUETS

Source: United States Squash Racquets Association.

National Singles Champions

1907–08	John A. Miskey, Overbrook G. C.
1909	W. L. Freeland, Germantown C. C.
1910	John A. Miskey, Overbrook G. C.
1911	F. S. White, Germantown C. C.
1912	Constantine Hutchins, Boston A. A.
1913	Mortimer L. Newhall, Germantown C. C.
1914	Constantine Hutchins, Boston T. and R. Club
1915–17	Stanley W. Pearson, Germantown C. C.
1918–19	No tournaments
1920	Charles C. Peabody, Union B. C., Boston
1921–23	Stanley W. Pearson, Philadelphia R. C.
1924	Gerald Robarts, Bath Club, London
1925	W. Palmer Dixon, Harvard University
1926	W. Palmer Dixon, R. and T. Club, N. Y.
1927	Myles P. Baker, Boston A. A.
1928	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.
1929	J. Lawrence Pool, Harvard Club, New York
1930	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.
1931	J. Lawrence Pool, Harvard Club, New York
1932	Beekman Pool, Harvard University
1933	Beekman Pool, Harvard Club, New York
1934	Neil J. Sullivan, Germantown C. C.
1935	Donald Strachan, Philadelphia C. C.
1936	Germain G. Glidden, Harvard University
1937–38	Germain G. Glidden, Harvard Club, New York
1939	Donald Strachan, Merion C. C.
1940	A. Willing Patterson, Philadelphia R. C.
1941–42	Charles W. Brinton, Princeton University
1943–45	No tournaments
1946–47	Charles W. Brinton, Philadelphia
1948	Stanley W. Pearson, Jr., Philadelphia
1949	Hunter H. Lott, Jr., Merion C. C.
1950–51	Edward Hahn, Detroit
1952	Harry Conlon, Buffalo, N. Y.
1953	Ernie Howard, Toronto
1954	G. Diehl Mateer, Jr., Philadelphia

Lapham International Trophy Record

Year	Result	Where played
1922	U. S. 11, Canada 2	Boston
1923	U. S. 9, Canada 3	Toronto
1924	U. S. 7⅔, England 6, Canada 1⅓	Philadelphia
1925	U. S. 10, Canada 5	Montreal
1926	U. S. 13, Canada 2	New York
1927	England 17½, U. S. 16½, Canada 11	Toronto
1928	U. S. 14, Canada 1	Buffalo
1929	Canada 8, U. S. 4	Hamilton
1930	U. S. 8, Canada 1	Baltimore
1931	Canada 6, U. S. 5	Quebec
1932	U. S. 8, Canada 0	Hartford
1933	Canada 11, U. S. 4	Toronto
1934	U. S. 10, Canada 1	Cedarhurst, N. Y.
1935	U. S. 11, Canada 4	Montreal
1936	U. S. 10, Canada 2	Detroit
1937	Canada 8, U. S. 7	Montreal
1938	U. S. 13, Canada 2	Boston
1939	Canada 11, U. S. 4	Toronto
1940	Canada 10, U. S. 5	Hartford
1941	U. S. 8, Canada 7	Toronto
1942	U. S. 13, Canada 2	Rochester, N. Y.
1943	Canada 7, U. S. 5	Montreal
1944	U. S. 12, Canada 3	New York
1945	Canada 12, U. S. 3	Toronto
1946	U. S. 13, Canada 2	Boston
1947	Canada 9, U. S. 6	Hamilton
1948	U. S. 15, Canada 5	Hartford
1949	Canada 7, U. S. 3	Quebec
1950	U. S. 7, Canada 6	Providence
1951	U. S. 8, Canada 7	Toronto
1952	Canada 9, U. S. 6	Rochester, N. Y.
1953	U. S. 9, Canada 6	Montreal
1954	U. S. 14, Canada 1	Hartford

RACQUETS

Source: Allison Danzig, *The New York Times.*

National Champions

1890	B. Spalding de Garmendia, N. Y. Racquet Court
1891	B. Spalding de Garmendia, R. and T. Club
1892	J. S. Tooker, R. and T. Club, Boston A. A.
1893–94	B. Spalding de Garmendia, R. and T. Club
1895	J. S. Tooker, R. and T. Club, Boston A. A.
1896–97	B. Spalding de Garmendia, R. and T. Club
1898	F. F. Rolland, Canada
1899	Quincy A. Shaw, Jr., Boston A. A.
1900	Eustace H. Miles, England
1901	Quincy A. Shaw, Jr., Boston A. A.
1902	Clarence H. Mackay, R. and T. Club
1903	Payne Whitney, R. and T. Club
1904	George H. Brooke, Philadelphia R. C.
1905	Lawrence Waterbury, R. and T. Club
1906	Percy D. Haughton, R. and T. Club
1907	Reginald Fincke, R. and T. Club
1908	Quincy A. Shaw, Jr., Boston T. and R. Club
1909	H. F. McCormick, University Club, Chicago
1910	Quincy A. Shaw, Jr., Boston T. and R. Club
1911–12	Reginald Fincke, R. and T. Club
1913–14	Lawrence Waterbury, R. and T. Club
1915	C. C. Pell, R. and T. Club and Tuxedo
1916	S. G. Mortimer, R. and T. Club and Tuxedo
1917	C. C. Pell, R. and T. Club and Tuxedo
1918–19	No tournaments
1920–22	C. C. Pell, R. and T. Club and Tuxedo
1923	S. G. Mortimer, R. and T. Club and Tuxedo
1924–25	C. C. Pell, R. and T. Club and Tuxedo
1926	S. G. Mortimer, R. and T. Club and Tuxedo
1927–28	C. C. Pell, R. and T. Club and Tuxedo
1929	H. D. Sheldon, R. and T. Club
1930	S. G. Mortimer, R. and T. Club and Tuxedo
1931–33	C. C. Pell, R. and T. Club and Tuxedo
1934	E. M. Edwards, Philadelphia R. C.
1935	H. D. Sheldon, R. and T. Club
1936	E. M. Edwards, Philadelphia R. C.
1937–39	Robert Grant, III, R. and T. Club
1940	Warren Ingersoll, III, Philadelphia R. C.
1941	Robert Grant, III, R. and T. Club
1942–45	No tournaments
1946	Robert Grant, III, R. and T. Club
1947	J. Richards Leonard, R. and T. Club
1948–51	Robert Grant, III, R. and T. Club
1952	S. W. Pearson, Jr., Philadelphia R. C.
1953	Robert Grant, III, R. and T. Club
1954	Geoffrey W. T. Atkins, Chicago

Tuxedo (N. Y.) Gold Racquet Winners

04	M. S. Barger, R. and T. Club
05–07	C. H. Mackay, R. and T. Club
08	J. G. Douglas, R. and T. Club
09	H. F. McCormick, Chicago Univ. Club
10	G. C. Clark, R. and T. Club
11–12	J. G. Douglas, R. and T. Club
13	H. F. McCormick, Chicago Univ. Club
14–17	C. C. Pell, R. and T. Club and Tuxedo
18–20	No tournaments
21–23	C. C. Pell, R. and T. Club and Tuxedo
24	S. G. Mortimer, R. and T. Club and Tuxedo
25–27	C. C. Pell, R. and T. Club and Tuxedo
28	S. G. Mortimer, R. and T. Club and Tuxedo
29–30	C. C. Pell, R. and T. Club and Tuxedo
31	S. G. Mortimer, R. and T. Club and Tuxedo
1932–33	C. C. Pell, R. and T. Club and Tuxedo
1934	J. R. Leonard, R. and T. Club
1935	H. B. Sheldon, R. and T. Club
1936	C. C. Pell, R. and T. Club and Tuxedo
1937–39	R. Grant, III, R. and T. Club
1940	J. R. Leonard, R. and T. Club
1941	R. Grant, III, R. and T. Club
1942–45	No tournaments
1946–47	R. Grant, III, R. and T. Club
1948	J. R. Leonard, R. and T. Club
1949–50	R. Grant, III, R. and T. Club
1951	R. A. A. Holt, London, England
1952	S. W. Pearson, Jr., Philadelphia R. C.
1953–54	Geoffrey W. T. Atkins, Chicago

SQUASH TENNIS

National Champions

ear	Winner and Club
11–12	Alfred Stillman, Harvard
13	George Whitney, Harvard
14	Alfred Stillman, Harvard
15–17	Eric S. Winston, Harvard
18	Fillmore Van S. Hyde, Harvard
19	John W. Appel, Jr., Harvard
20	Auguste J. Cordier, Yale
21	Fillmore Van S. Hyde, Harvard
22	Thomas R. Coward, Yale
23	R. Earl Fink, Crescent
24	Fillmore Van S. Hyde, Harvard
25	William Rand, Jr., Harvard
26	Fillmore Van S. Hyde, Harvard
27–29	Rowland B. Haines, Columbia
1930–37	Harry F. Wolf, New York A. C.
1938	Harry F. Wolf, Montclair
1939–40	Harry F. Wolf, New York A. C.
1941	Joseph J. Lordi, New York A. C.
1942	H. Robert Reeve, Bayside T. C.
1943–45	No tournaments
1946	Frank R. Hanson, Columbia
1947	Frederick B. Ryan, Jr., Yale
1948–49	H. Robert Reeve, Bayside T. C.
1950	H. Robert Reeve, Nassau C. C.
1951	J. T. P. Sullivan, Yale
1952	H. Robert Reeve, New York A. C.
1953	Howard J. Rose, Princeton Club
1954	H. Robert Reeve, Bayside T. C.

COURT TENNIS

Source: Allison Danzig, *The New York Times.*

National Champions

92	Richard D. Sears, Boston A. A.
93	Fiske Warren, Boston A. A.
94–95	B. Spalding de Garmendia, R. and T. Club
96	Lawrence M. Stockton, Boston A. A.
97	George R. Fearing, Jr., Boston A. A.
98–99	Lawrence M. Stockton, Boston A. A.
00	Eustace H. Miles, England
01–04	Joshua Crane, Boston A. A.
05	Charles E. Sands, R. and T. Club
06–17	Jay Gould, Philadelphia R. C.
18–19	No tournaments
20–25	Jay Gould, Philadelphia R. C.
26	C. Suydam Cutting, R. and T. Club
27	George Huband, England, and Chicago R. C.
1928–29	Hewitt Morgan, R. and T. Club
1930	Lord Aberdare, England
1931–32	William C. Wright, Philadelphia
1933	James H. Van Alen, R. and T. Club
1934–37	Ogden Phipps, R. and T. Club
1938	James H. Van Alen, R. and T. Club
1939	Ogden Phipps, R. and T. Club
1940	James H. Van Alen, R. and T. Club
1941	Alastair B. Martin, R. and T. Club
1942–45	No tournaments
1946	Robert Grant, III, R. and T. Club
1947	E. M. Beals, Jr., Boston
1948–49	Ogden Phipps, Roslyn, N. Y.
1950–54	Alastair B. Martin, R. and T. Club

CASTING

World Records

DISTANCE EVENTS

	Feet
out fly (average)—Jack Crossfield	186½
out fly (long cast)—Jack Crossfield	194
mon fly (average)—Myron C. Gregory	200⅔
mon fly (long cast)—Myron C. Gregory	212
oz. bait (average)—Richard R. Ward	368
oz. bait (long cast)—Richard R. Ward	386
oz. bait (average)—Charles L. Schall	443
oz. bait (long cast)—John Kiedaisch	449

ACCURACY EVENTS

y fly—Tie among Frank Steel, Marvin Allen, Allan Childers, Don Meyer and Roy Norton	100 pts.
t fly—Held by 51 casters	100 pts.
oz. bait—Tie among S. G. Dennis, Adelea McDonald, J. H. Wine, Marion Garber, Marvin Allen and Bobby Spear	99 pts.
⅝-oz. bait—Tie among J. A. Halblieb, Frank Halper and Don Allen	100 pts.

COMBINED CHAMPIONSHIPS

All-accuracy—Marion Garber	394 pts.
Accuracy flies—Donald Meyer	200 pts.
All-distance—Jon Tarantino	3334 pts.
Distance baits—William J. Lovely	2367 ft.
Distance flies—Jon Tarantino	1114 ft.

WATER POLO

1955 A. A. U. Champions

Senior outdoor—Illinois A. C., Chicago
Senior indoor—Illinois A. C.
Junior indoor—West Point (N. Y.) W. P. C.

ICE HOCKEY

ICE HOCKEY, by birth and upbringing a Canadian game, is an offshoot of field hockey. Some historians state that the first ice hockey game was played in Montreal in December, 1879, between two teams composed almost exclusively of McGill University students, but others assert that Kingston, Ont., or Halifax, N. S., were scenes of earlier hockey games. In the Montreal game of 1879 there were fifteen players on a side and they used an assortment of crude sticks to keep the puck in motion. Early rules allowed nine men on a side but the number was reduced to seven in 1886 and finally reduced to six, the standard of today.

The first governing body of the sport was the Amateur Hockey Association of Canada, organized in 1887. In the winter of 1894–95 a group of college students from the United States visited Canada, saw hockey played, became enthused over the game and introduced it as a winter sport when they returned home. This was the start of hockey in the United States. The first professional league was the International Hockey League that operated, strangely enough, not in Canada but in northern Michigan in 1904–06 and included as players such famous stars as Cyclone Taylor and Hod Stuart, later included in the Hockey Hall of Fame.

Until 1910, professionals and amateurs were allowed to play together on "mixed teams," but this arrangement ended with the formation of the first "big league," the National Hockey Association, in eastern Canada in 1910. The Pacific Coast League, to provide professional hockey in the West, was organized in 1911 with Seattle (and later other American cities) included in the circuit. The National Hockey League replaced the National Hockey Association in 1917. Boston, in 1924, was the first American city to join that circuit. The Stanley Cup, top trophy of hockey, was competed for by "mixed teams" from 1894 to 1910, thereafter by professionals.

Professional Statistics

Source: Carl Grothmann, Hockey Department, Madison Square Garden

STANLEY CUP WINNERS

Emblematic of world professional championship.

1894—Montreal A. A. A.
1895—Montreal Victorias
1896—Winnipeg Victorias
1897—Montreal Victorias
1898—Montreal Victorias
1899—Montreal Victorias
1900—Montreal Shamrocks
1901—Winnipeg Victorias
1902—Montreal A. A. A.
1903—Ottawa Silver Seven
1904—Ottawa Silver Seven
1905—Ottawa Silver Seven
1906—Montreal Wanderers
1907—Kenora Thistles
1907—Mont. Wanderers*
1908—Montreal Wanderers
1909—Ottawa Senators
1910—Montreal Wanderers
1911—Ottawa Senators
1912—Quebec Bulldogs
1913—Quebec Bulldogs
1914—Toronto
1915—Vancouver Millionaires
1916—Montreal Canadiens
1917—Seattle Metropolitans
1918—Toronto Arenas
1919—Series unfinished†
1920—Ottawa Senators
1921—Ottawa Senators
1922—Toronto St. Patricks
1923—Ottawa Senators
1924—Montreal Canadiens
1925—Victoria Cougars
1926—Montreal Maroons
1927—Ottawa Senators
1928—N. Y. Rangers
1929—Boston Bruins
1930—Montreal Canadiens
1931—Montreal Canadiens
1932—Toronto Maple Leafs
1933—N. Y. Rangers
1934—Chicago Black Hawks
1935—Montreal Maroons
1936—Detroit Red Wings
1937—Detroit Red Wings
1938—Chicago Black Hawks
1939—Boston Bruins
1940—N. Y. Rangers
1941—Boston Bruins
1942—Toronto Maple Leafs
1943—Detroit Red Wings
1944—Montreal Canadiens
1945—Toronto Maple Leafs
1946—Montreal Canadiens
1947—Toronto Maple Leafs
1948—Toronto Maple Leafs
1949—Toronto Maple Leafs
1950—Detroit Red Wings
1951—Toronto Maple Leafs
1952—Detroit Red Wings
1953—Montreal Canadiens
1954—Detroit Red Wings

* March.

† The Montreal Canadiens and Seattle, P.C.H.L. champions, had played five games at Seattle, Wash., when an influenza epidemic (which took the life of Joe Hall of the Canadiens) caused the Department of Health to stop the series. Each team won two games, with one contest ending in a tie.

HOCKEY'S HALL OF FAME

Kingston, Ontario

Donald H. Bain
Hobey Baker
R. R. (Dickie) Boon
Russell Bowie
Aubrey Clapper
Bill Cook
Allan Davidson
Chas. G. Drinkwater
Charles Gardiner
Eddie Gerard
Frank (Moose) Goheen
Mike Grant
Silas Griffis
Ernest (Moose) Johnson
Aurel Joliat
E. C. (Newsy) Lalonde
Duncan (Mickey) MacKay
Joe Malone
Frank McGee
Howie Morenz
Frank Nighbor
Frank Patrick
Lester Patrick
Tom Phillips
Harvey Pulford
George Richardson
Arthur H. Ross
Eddie Shore
Nelson (Nels) Stewart
Hod Stuart
Fred (Cyclone) Taylor
Harry J. Trihey
Georges Vezina

Red Wings Hold Stanley Cup Mark

In 1952 the Detroit Red Wings set a National Hockey League play-off record by scoring an eight-game sweep to gain th Stanley Cup.

BASKETBALL

BASKETBALL may be unique in sports. It is one game concerning which it is safe to state when, where and how it originated. In the winter of 1891–92, Dr. James Naismith, an instructor in the Y.M.C.A. Training College (now Springfield College) at Springfield, Mass., deliberately invented the game of basketball in order to provide indoor exercise and competition for the students between the closing of the football season and the opening of the baseball season. He affixed peach baskets overhead on the walls at opposite ends of the gymnasium and, with an association (soccer) football, organized teams to play his new game in which the purpose was to toss the ball into one basket and prevent, as far as possible, the opponents from tossing the ball into the other basket. Fundamentally, the game is the same today, though there have been some improvements in equipment and many changes in the rules.

Because Dr. Naismith had eighteen available players when he invented the game, the first rule was: "There shall be nine players on each side." Later the number of players became optional, depending upon the size of the available court, but the five-player standard was adopted when the game spread over the country. United States soldiers introduced the game in Europe in World War I and, being taken up by foreign nations, it soon became a world-wide sport. An odd point is that, though it is still chiefly an indoor game in the United States, in other countries it flourishes almost entirely outdoors.

National Collegiate A. A. Champions

1939—Oregon
1940—Indiana
1941—Wisconsin
1942—Stanford
1943—Wyoming
1944—Utah
1945—Oklahoma A & M
1946—Oklahoma A & M
1947—Holy Cross
1948—Kentucky
1949—Kentucky
1950—C.C.N.Y.
1951—Kentucky
1952—Kansas
1953—Indiana
1954—La Salle

National Invitation Champions

(Madison Square Garden Tourney)

1938—Temple
1939—Long Island U.
1940—Colorado
1941—Long Island U.
1942—West Virginia
1943—St. John's (Bklyn.)
1944—St. John's (Bklyn.)
1945—DePaul
1946—Kentucky
1947—Utah
1948—St. Louis
1949—San Francisco
1950—C.C.N.Y.
1951—Brigham Young
1952—La Salle (Phila.)
1953—Seton Hall
1954—Holy Cross

Professional Champions

The National Basketball League, formed in 1937, merged with the Basketball Association of America in the summer of 1949. Play in the B. A. A. started in 1946, with teams in ten cities. The current National Basketball Association is the result of the merger. The champions follow:

National League

1938—Goodyears
1939–40—Firestones
1941–42—Oshkosh
1943–45—Fort Wayne
1946—Rochester
1947—Chicago
1948—Minneapolis
1949—Anderson

Association of America

1947—Philadelphia
1948—Baltimore
1949—Minneapolis

National Association

1950—Minneapolis
1951—Rochester
1952—Minneapolis
1953—Minneapolis
1954—Minneapolis

AMERICAN LEAGUE CHAMPIONS

1926—Cleveland Rosenblums
1927—Brooklyn Original Celtics
1928—Brooklyn Original Celtics
1929—Cleveland Rosenblums
1930—Cleveland Rosenblums
1931—Brooklyn Visitations
1932—No competition
1933—No competition
1934—Philadelphia Hebrews
1935—Brooklyn Visitations
1936—Philadelphia Hebrews
1937—Philadelphia Hebrews
1938—Jersey Reds
1939—New York Jewels
1940—Philadelphia Sphas
1941—Philadelphia Sphas
1942—Wilmington
1943—Philadelphia Sphas
1944—Wilmington Bombers
1945—Philadelphia Sphas
1946—Baltimore Bullets
1947—Trenton Tigers
1948—Wilkes-Barre Barons
1949—Wilkes-Barre Barons
1950—Scranton Miners
1951—Scranton Miners
1952—Wilkes-Barre Barons
1953—Manchester (Conn.) Colonels
1954—No competition

Mary Donnelly, with her Irish terrier, Shandon's Lulu Belle, won the Professional Handlers Association's junior showmanship class competition for the Leonard Brumby Sr. Memorial Trophy at the 1955 Westminster Kennel Club show.

BOWLING

THE GAME OF bowling that is the favorite sport of millions of "keglers" in the United States is an indoor development of the more ancient outdoor game that survives as lawn bowling. The outdoor game is prehistoric in origin and probably goes back to Primitive Man and round stones that were rolled at some target. It is believed that a game something like nine-pins was popular among the Dutch, Swiss and Germans as long ago as A.D. 1200 at which time the game was played outdoors with an alley consisting of a single plank 12 to 18 inches wide along which was rolled a ball toward three rows of three pins each placed at the far end of the alley. When the first indoor alleys were built and how the game was modified from time to time are matters of dispute. Much of the confusion arises from a lack of certainty as to which game is meant, "bowls" or "bowling", one with a "jack" and the other with "pins", in historical passages.

It is supposed that the early settlers of New Amsterdam (New York City) being Dutch, they brought their two bowling games with them. About a century ago the game of nine-pins was flourishing in the United States but so corrupted by gambling on matches that it was barred by law in New York and Connecticut. Since the law specifically barred "nine-pins", it was eventually evaded by adding another pin and thus legally making it a new game. The genius who thought up that simple method of outwitting the law and putting a popular game in motion once more remained modestly anonymous. With the increase in the number of pins, the old diamond formation of nine-pins was abandoned for the triangle set-up of ten-pins that remains the rule to this day. Various organizations were formed to make rules for bowling and supervise competition in the United States but none was successful until the American Bowling Congress, organized Sept. 9, 1895, became the ruling body.

Bowling Statistics

Source: American Bowling Congress.

American Bowling Congress Tournament Records

Type of record	Holder and home city	Score	Year
High team total	Birk Bros., Chicago	3234	1938
High team game	Tea Shop, Milwaukee	1186	1927
High doubles total	Steve Nagy-John Klares, Cleveland	1453	1952
High doubles game	J. Gworek—H. Kmidowski, Buffalo	544	1946
High singles total	Lee Jouglard, Detroit	775	1951
High all events total	Max Stein, Belleville, Ill.	2070	1937
High 3 games in any event	Lee Jouglard, Detroit	775	1951

AMERICAN BOWLING CONGRESS CHAMPIONS

Year	Singles	Score	Doubles	Score
1931	Walter Lachowski, Erie, Pa.	712	E. Rafferty—C. Reilly, Philadelphia, Pa.	1316
1932	Otto Nitschke, Cleveland, Ohio	731	F. Benkovic—C. Daw, Milwaukee, Wis.	1358
1933	Earl Hewitt, Erie, Pa.	724	G. Zunker—F. Benkovic, Milwaukee, Wis.	1415
1934	Jerry Vidro, Grand Rapids, Mich.	721	G. Rudolph—J. Ryan, Waukegan, Ill.	1321
1935	Don Brokaw, Canton, Ohio	733	C. Summerix—H. Souers, Akron, Ohio	1348
1936	Charles Warren, Springfield, Ill.	735	A. Slanina—M. Straka, Chicago, Ill.	1347
1937	Gene Gagliardi, Mt. Vernon, N. Y.	749	V. Gibbs, Kansas City, Mo.—N. Burton, Dallas, Texas	1359
1938	Knute Anderson, Moline, Ill.	746	D. Johnson—F. Snyder, Indianapolis, Ind.	1337
1939	Jim Danek, Forest Park, Ill.	730	P. Icuss—M. Fowler, Steubenville, Ohio	1405
1940	Ray Brown, Terre Haute, Ind.	742	H. Freitag—J. Sinke, Chicago, Ill.	1346
1941	Fred Ruff, Belleville, Ill.	745	W. Lee—R. Farness, Madison, Wis.	1346
1942	John Stanley, Cleveland, Ohio	756	E. Nowicki—G. Baier, Milwaukee, Wis.	1377
1946	Leo Rollick, Los Angeles, Calif.	737	J. Gworek—H. Kmidowski, Buffalo, N. Y.	1366
1947	Junie McMahon, Chicago	740	Ed Doerr, Jr.—Len Springmeyer, St. Louis	1350
1948	Lincoln Protich, Akron, Ohio	721	J. Towns—W. Sweeney, Chicago	1361
1949	Bernard Rusche, St. Bernard, Ohio	716	D. Van Boxel, Green Bay—E. Bernhardt, Sturgeon Bay	1332
1950	Everett Leins, Aurora, Ill.	757	W. Ebosh-E. Linsz, Cleveland	1325
1951	Lee Jouglard, Detroit, Mich.	775	Bob Benson—Ed Marshall, Lansing, Mich.	1334
1952	Al Sharkey, Chicago	758	Steve Nagy-John Klares, Cleveland	1453
1953	Frank Santore, Long Island City, N. Y.	749	Eddie Koep—Joe Kissoff, Cleveland	1339
1954	Tony Sparando, Rego Park, N. Y.	723	Don McClaren, St. Louis—Billy Welu, Houston	1335

American Bowling Congress Champions (cont.)

Year	All-events	Score	Team	Score
1932	Hugh Stewart, Cincinnati, Ohio	1980	Jefferson Clothiers, Dayton, Ohio	3108
1933	Gil Zunker, Milwaukee, Wis.	2060	Flaig Opticians, Covington, Ky.	3021
1934	Walt Reppenhagen, Detroit, Mich.	1972	Strohs, Detroit, Mich.	3089
1935	Ora Mayer, San Francisco, Calif.	2022	Wolfe Tire Service, Niagara Falls, N. Y.	3029
1936	John Murphy, Indianapolis, Ind.	2006	Falls City Hi-Bru, Indianapolis, Ind.	3089
1937	Max Stein, Belleville, Ill.	2070	Krakow Furniture, Detroit, Mich.	3118
1938	Don Beatty, Jackson, Mich.	1978	Birk Bros., Chicago, Ill.	3234
1939	Joe Wilman, Chicago, Ill.	2028	Fife Electric, Detroit, Mich.	3151
1940	Fred Fisher, Buffalo, N. Y.	2001	Monarch Beer, Chicago, Ill.	3047
1941	Harold Kelly, South Bend, Ind.	2013	Vogel Bros., Forest Park, Ill.	3065
1942	Stan Moskal, Saginaw, Mich.	1973	Budweiser, Chicago, Ill.	3131
1946	Joe Wilman, Chicago, Ill.	2054	Llo-da-mar Bowl, Santa Monica, Calif.	3023
1947	Junie McMahon, Chicago	1965	Eddie and Earl Linsz, Cleveland, Ohio	3032
1948	Ned Day, West Allis, Wis.	1979	Washington Shirts, Chicago	3007
1949	John Small, Chicago	1941	Jimmie Smith's, South Bend, Ind.	3027
1950	Frank Santore, Long Island City, N. Y.	1981	Pepsi-Cola, Detroit	2952
1951	Tony Lindeman, Detroit	2005	C. B. O'Malley Oldsmobile, Chicago	3070
1952	Steve Nagy, Cleveland, Ohio	2065	E & B Beer, Detroit, Mich.	3115
1953	Frank Santore, Long Island City, N. Y.	1994	Pfeiffer Beer, Detroit	3181
1954	Brad Lewis, Ashland, Ohio	1985	Tri-Par Radio, Chicago	3226

WOMAN'S INTERNATIONAL BOWLING CONGRESS CHAMPIONS

Source: Emma Phaler, Secretary, Woman's International Bowling Congress, Inc.

Year	Singles	Score	Doubles	Score
1932	Audrey McVay, Kansas City, Mo.	668	M. Frank—E. Kirg, Chicago	1218
1933	Mrs. Sally Twyford, Aurora, Ill.	628	V Peters—M. Kite, Syracuse, N. Y.	1135
1934	Marie Clemensen, Chicago	712	F. Trettin—D. McQuade, Chicago	1190
1935	Marie Warmbier, Chicago	652	E. Haufler—B. Simon, San Antonio	1219
1936	Mrs. Ella Burmeister, Madison, Wis.	612	Mrs. A. Lindermann—Mrs. L. Baldy, Milwaukee	1116
1937	Mrs. Anna Gottstine, Buffalo	647	L. Franke—G. Weber, Fort Wayne	1230
1938	Mrs. Rose Warner, Waukegan, Ill.	622	F. Probert—E. Sablatnik, St. Louis	1215
1939	Helen Hengstler, Detroit	626	C. Powers—B. Reus, Grand Rapids	1130
1940	Mrs. Sally Twyford, Aurora, Ill.	626	T. Morris—D. Burmeister Miller, Chicago	1181
1941	Nancy Huff, Los Angeles	662	J. Pittinger—M. J. Hogan, Los Angeles	1155
1942	Tillie Taylor, Newark, N. J.	659	S. Hartrick—C. Allen, Detroit	1204
1946	Val Mikiel, Detroit	682	V. Focazio—P. Dusher, Niagara Falls, N. Y.	1251
1947	Agnes Junker, Indianapolis, Ind.	650	Candice Miller—E. Beard, Ft. Wayne, Ind.	1245
1948	Shirlee Wernecke, Chicago	696	M. Cass, Alhambra—M. Mathews, Long Beach, Calif.	1188
1949	Clara Mataya, St. Louis	658	Ann Elyasevich—Estelle Svoboda, Chicago	1229
1950	Cleo Stalkamp, Newport, Ky.	669	Shirley Gantenbein—Flo Schick, Dallas	1216
1951	Ida Simpson, Buffalo, N. Y.	639	Esther Cook—Alma Denini, Seattle	1179
1952	Lorene Craig, Kansas City, Mo.	672	Lorraine Quam—Martha Hoffman, Madison, Wis.	1206
1953	Marge Baginski, Berwyn, Ill.	637	Doris Knechtges—Jane Grudzien, Detroit	1211
1954	Mrs. Helen Martin, Peoria, Ill.	668	Frances Stennett—Rose Gacioch, Rockford, Ill.	1244

Year	All-events	Score	Team	Score
1932	Marie Warmbier, Chicago	1807	Martin Breitt Realtors, St. Louis	2667
1933	Mrs. Sally Twyford, Aurora, Ill.	1765	Alberti Jewelers, Chicago	2864
1934	Mrs. Esther Ryan, Milwaukee	1763	Tommy Dolls Five, Cincinnati	2616
1935	Marie Warmbier, Chicago	1911	Alberti Jewelers, Chicago	2765
1936	Mrs. Ella Burmeister, Madison, Wis.	1683	Easty Five, Cleveland	2617
1937	Mrs. Louise Stockdale, Detroit	1761	The Heil Uniform Heat, Milwaukee	2685
1938	Dorothy Burmeister, Chicago	1843	The Heil Uniform Heat, Milwaukee	2706
1939	Ruth Troy, Dayton, Ohio	1724	Kornitz Pure Oil, Milwaukee	2618
1940	Mrs. Tess Morris, Chicago	1777	Logan Square Buicks, Chicago	2689
1941	Mrs. Sally Twyford, Aurora, Ill.	1799	Rovick Bowling Shoes, Chicago	2661
1942	Nina Van Camp, Chicago	1888	Logan Square Buicks, Chicago	2815
1946	Catherine Fellmeth, Chicago	1835	Silver Seal Soda, St. Louis	2721
1947	Marge Dardeen, Cincinnati	1826	Kornitz Pure Oil, Milwaukee	2987
1948	Virgie Hupfer, Burlington, Iowa	1850	Kathryn Creme Pact, Chicago	2812
1949	Cecelia Winandy, Chicago	1840	Gears by Enterprise, Detroit	2786
1950	Marion Ladewig, Grand Rapids, Mich.	1796	Fanitorium Majors, Grand Rapids, Mich.	2903
1951	LaVerne Haverley, Los Angeles	1788	Hickman Oldsmobile Whirlaway, Indianapolis	2705
1952	Mrs. Virginia Turner, Gardena, Calif.	1854	Cole Furniture, Cleveland	2854
1953	Doris Knechtges, Detroit	1886	B. & B. Chevrolet, Detroit	2931
1954	Anne Johnson, Hazleton, Pa.	1880	Marhoefer Weiners, Chicago	2734

DUCK PINS

Source: A. L. Ebersole, Executive Secretary, National Duck Pin Bowling Congress.

WORLD RECORDS (MEN)

Individual

Event and record holder	Score
Single game—Eddie Funaro, New Haven, Conn.	239
3-game set—Arthur Lemke, Lowell, Mass.	542
4-game set—James Deitsch, Baltimore	624
5-game set—Larkin Weedon, Washington	786
6-game set—Andy Friar, Fall River, Mass.	914
7-game set—Howard Parsons, Washington, D. C.	1,091
8-game set—John Gaise, Baltimore	1,179
9-game set—Mike Litrenta, Baltimore	1,339
10-game set—Winny Guerke, Baltimore	1,482
Season average—Nick Tronsky, New Britain, Conn.	134-14

Doubles

Single game—W. Christiano-J. Silk, Norwalk, Conn.	352
3-game set—M. Avon-P. Jarman, Washington, D. C.	929
4-game set—Dawson Snyder-James Rosenberger, Baltimore	1,122
5-game set—Andy Page-Gene Sirbaugh, Atlanta, Ga.	1,428
6-game set—N. Hamilton-W. Guerke, Baltimore	1,624
7-game set—S. Witkowski, Middletown, Conn.-J. Genovesi, Rockville, Conn.	1,938
8-game set—E. Campbell-L. Selm, Annapolis, Md.	2,128
9-game set—N. Hamilton-W. Guerke, Baltimore	2,431
10-game set—J. Dietsch-J. Weinkam, Baltimore	2,752
Season average—H. Hipsley-J. Dietsch, Baltimore	254-10

Teams

Single game—Winchester Packard, Washington, D. C.	797
3-game set—Hick's Cafe, Baltimore	2,123
5-game set—Kelly Buick, Baltimore	3,348
10-game set—Park Circle Motor, Baltimore	6,460
15-game set—Popular Club-Recreation, Baltimore	9,420
Consecutive wins—Franks Tavern, Washington, D. C.	33
Season average—National Beer, Baltimore	638-42
3-man game—Middletown (Conn.) All-Stars	475
3-man set—Huguely's Bethesda (Md.) Stars	1,249
3-man 5-game set—C. Hildebrand, E. Pickus, N. Hamilton, Baltimore	1,957

WORLD RECORDS (WOMEN)

Individual

Event and record holder	Score
Single game—Vivian Walsh, Washington	232
3-game set—Minerva Weisenborn, Baltimore	471
4-game set—Mrs. Ellen Holland, Norfolk, Va.	561
5-game set—Elizabeth Barger, Baltimore, Md.	745
6-game set—Ida Simmons, Norfolk, Va., and Joan Nuessele, Baltimore (tie)	835
7-game set—Elizabeth Barger, Baltimore	997
8-game set—Ethel Dize, Baltimore	1,057
9-game set—Maxine Allen, Durham, N. C.	1,231
10-game set—Ida Simmons, Norfolk, Va.	1,355
Season average—Ida Simmons Slack	124-15

Doubles

Single game—Hazel Wells-Ruby Hovanic, Bridgeport, Conn.	338
3-game set—A. Levy-D. Smith, Norfolk, Va.	798
4-game set—E. Brose-T. McDonough, Baltimore	966
5-game set—E. Barger-E. Dize, Baltimore	1,298
6-game set—I. Simmons-E. Leib, Baltimore	1,458
7-game set—E. Traber-M. Cleaveland, Atlanta, Ga.	1,694
8-game set—T. McDonough-E. Brose, Baltimore	1,905
9-game set—I. Simmons-E. Leib, Baltimore	2,139
10-game set—E. Barger-E. Dize, Baltimore	2,572
Season average—N. Zimmerman-M. Tuckey, Baltimore	217

Teams

Single game—Devon All-Star Girls, Devon, Conn.	721
3-game set—Star Laundry Girls, Norwalk, Conn.	1,965
5-game set—Pine Grove Dairy, Portsmouth, Va.	3,094
10-game set—Evening Star Champions, Washington, D. C.	5,438
Season average—Aristocrat Dairy, Baltimore	578-0
Consecutive wins—Bookies, Richmond, Va.	37
3-woman 7-game set—I. Simmons, J. White, E. Leib, Baltimore	2,433

SKIING

Long Jumps (Official American)

Year	Made by and place	Distance; in feet
1905	Gustave Bye, Red Wing, Minn.	106
1908	John Evenson, Ishpeming, Mich.	122
1910	August Nordby, Ishpeming, Mich.	140
1913	Lars Haugen, Steamboat Springs, Colo.	185
1917	Henry Hall, Steamboat Springs, Colo.	203
1919	Lars Haugen, Steamboat Springs, Colo.	214
1932	Hans Beck, Lake Placid, N. Y.	235
1934	John Elvrum, Big Pines, Calif.	240
1937	Alf Engen, Salt Lake City, Utah	242
1939	Alf Engen, Big Pines, Calif.	251
1939	Bob Roecker, Iron Mountain, Mich.	257
1941	Alf Engen, Iron Mountain, Mich.	267
1941	Torger Tokle, Leavenworth, Wash.	273
1941	Torger Tokle, Olympian Hill, Hyak, Wash.	288
1942	Torger Tokle, Iron Mountain, Mich.	289
1949	Joe Perrault, Iron Mountain, Mich.	297
1950	Gordon Wren, Steamboat Springs, Colo.	297
1950	Billy Olson, Iron Mountain, Mich.	297
1951	Ansten Samuelstuen, Steamboat Springs	316

1955 Y.M.C.A. CHAMPIONS

Source: Dr. Harold T. Friermood, Secretary, Health and Physical Education, National Council of the Y.M.C.A.'s.

Swimming—Dayton, Ohio
Weight lifting—York, Pa.

WRESTLING

Free-Style—Baltimore Central
Greco-Roman—Toledo Central

GYMNASTICS

Individual all-around—Abie Grossfield, West Side
Team—West Side, New York

VOLLEYBALL

Senior—Stockton, Calif.
Veterans'—Houston Central

FOUR-WALL HANDBALL

Senior singles—John Sloan, Irving Park, Chicago
Senior doubles—John Sloan—Phil Collins, Irving Park
Junior singles—Julius Ross, Cleveland Central
Junior doubles—Oscar Penchef-George Miller, Toledo Central

BOYS' ATHLETIC ACHIEVEMENT

Individual—Mark Swarts, York, Pa.
Team—York, Pa.

FENCING

Source: Amateur Fencers League of America.

NATIONAL CHAMPIONS

Year	Foil	Épée	Saber	Women's foil
1892	W. S. O'Connor	B. F. O'Connor	R. O. Haubold	
1893	W. T. Heintz	G. M. Hammond	G. M. Hammond	
1894	C. G. Bothner	R. O. Haubold	G. M. Hammond	
1895	A. V. Z. Post	C. G. Bothner	C. G. Bothner	
1896	G. Kavanaugh	A. V. Z. Post	C. G. Bothner	
1897	C. G. Bothner	C. G. Bothner	C. G. Bothner	
1898	No competition			
1899	G. Kavanaugh	M. Diaz	G. Kavanaugh	
1900	F. Townsend	W. D. Lyon	J. L. Erving	
1901	C. Tatham	C. Tatham	A. V. Z. Post	
1902	J. P. Parker	C. Tatham	A. V. Z. Post	
1903	F. Townsend	C. Tatham	A. V. Z. Post	
1904	C. G. Bothner	C. G. Bothner	A. G. Anderson	
1905	C. G. Bothner	W. S. O'Connor	K. B. Johnson	
1906	S. D. Breckinridge	W. Grebe	A. G. Anderson	
1907	C. Waldbott	W. D. Lyon	A. G. Anderson	
1908	W. L. Bowman	P. Benzenberg	G. W. Postgate	
1909	O. A. Dickinson	A. De La Poer	A. E. Sauer	
1910	G. K. Bainbridge	A. De La Poer	J. T. Shaw	
1911	G. H. Breed	G. H. Breed	A. G. Anderson	
1912	S. Hall	A. V. Z. Post	C. A. Bill	A. Baylis
1913	P. J. Meylan	A. E. Sauer	A. G. Anderson	Mrs. W. H. Dewar
1914	S. D. Breckinridge	F. W. Allen	W. Von Blijenburgh	M. Stimson
1915	O. A. Dickinson	J. A. MacLaughlin	S. Hall	J. Pyle
1916	A. E. Sauer	W. H. Russell	S. Hall	Mrs. C. H. Woorhees
1917	S. Hall	L. G. Nunes	A. S. Lyon	F. Walton
1918	No competition			
1919	S. Hall	W. H. Russell	A. S. Lyon	No competition
1920	S. Hall	R. W. Dutcher	S. Hall	A. Gehrig
1921	F. W. Honeycutt	C. R. McPherson	C. R. McPherson	A. Gehrig
1922	H. M. Raynor	L. G. Nunes	L. G. Nunes	A. Gehrig
1923	R. Peroy	G. C. Calnan	L. M. Schoonmaker	A. Gehrig
1924	L. G. Nunes	L. G. Nunes	J. E. Gignoux	Mrs. C. H. Hopper
1925	G. C. Calnan	W. H. Russell	J. Vince	Mrs. L. M. Schoonmaker
1926	G. C. Calnan	L. G. Nunes	L. G. Nunes	Mrs. L. M. Schoonmaker
1927	G. C. Calnan	H. Van Buskirk	N. Muray	S. Stern
1928	G. C. Calnan	L. G. Nunes	N. Muray	M. Lloyd
1929	J. L. Levis	F. S. Righeimer	L. G. Nunes	Mrs. L. M. Schoonmaker
1930	G. C. Calnan	M. Pasche	N. C. Armitage	Mrs. H. Van Buskirk
1931	G. C. Calnan	M. A. de Capriles	J. R. Huffman	M. Lloyd
1932	J. L. Levis	L. G. Nunes	J. R. Huffman	D. Locke
1933	J. L. Levis	G. M. Heiss	J. R. Huffman	D. Locke
1934	H. V. Alessandroni	G. M. Heiss	N. C. Armitage	H. Mayer
1935	J. L. Levis	T. J. Sands	N. C. Armitage	H. Mayer
1936	H. V. Alessandroni	G. M. Heiss	N. C. Armitage	Mrs. J. de Tuscan
1937	J. L. Levis	T. J. Sands	J. R. Huffman	H. Mayer
1938	D. Every	J. R. de Capriles	J. R. Huffman	H. Mayer
1939	N. Lewis	L. Tingley	N. C. Armitage	H. Mayer
1940	D. Every	F. Seibert	N. C. Armitage	H. Mroczkowska
1941	D. Cetrulo	G. M. Heiss	N. C. Armitage	H. Mayer
1942	W. Dow	H. Santos	N. C. Armitage	H. Mayer
1943	W. Dow	R. Driscoll	N. C. Armitage	H. Mroczkowska
1944	A. Snyder	M. A. de Capriles	T. Nyilas	M. Dalton
1945	D. Every	M. Gilman	N. C. Armitage	M. Cerra
1946	J. R. de Capriles	A. Wolff	T. Nyilas	H. Mayer
1947	Dean Cetrulo	James Strauch	James Flynn	Mrs. Helena Dow
1948	Nathaniel Lubell	Norman Lewis	Dean Cetrulo	Mrs. Helena Dow
1949	Daniel Bukantz	Norman Lewis	Umberto Martino	Polly Craus
1950	Silvio Giolito	Norman Lewis	Tibor Nyilas	Janice-Lee York
1951	Silvio Giolito	J. R. de Capriles	Tibor Nyilas	Janice-Lee York
1952	Daniel Bukantz	Abelardo Menendez	Tibor Nyilas	Mrs. Maxine Mitchell
1953	Daniel Bukantz	Donald Thompson	Tibor Nyilas	Paula Sweeney
1954	Joseph L. Levis	Sewell Shurtz	George Worth	Mrs. Maxine Mitchell

ICE (FIGURE) SKATING

Source: Art Goodfellow, Editor, National Sports Publications, 7 Park Ave., New York, N. Y.

WORLD CHAMPIONS

Year	Men	Women
1896	Gilbert Fuchs, Germany	
1897	Gustav Hugel, Austria	
1898	H. Grenander, Sweden	
1899	Gustav Hugel, Austria	
1900	Gustav Hugel, Austria	
1901	Ulrich Salchow, Sweden	
1902	Ulrich Salchow, Sweden	
1903	Ulrich Salchow, Sweden	
1904	Ulrich Salchow, Sweden	
1905	Ulrich Salchow, Sweden	
1906	Gilbert Fuchs, Germany	Madge Syers, England
1907	Ulrich Salchow, Sweden	Madge Syers, England
1908	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1909	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1910	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1911	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1912	Fritz Kachler, Austria	Meray Horvath, Hungary
1913	Fritz Kachler, Austria	Meray Horvath, Hungary
1914	Gosta Sandahl, Sweden	Meray Horvath, Hungary
1915–21	No competition	No competition
1922	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1923	Fritz Kachler, Austria	Mrs. Szabo Plank, Austria
1924	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1925	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1926	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1927	Willi Boeckl, Austria	Sonja Henie, Norway
1928	Willi Boeckl, Austria	Sonja Henie, Norway
1929	Gillis Grafstrom, Sweden	Sonja Henie, Norway
1930	Karl Schafer, Austria	Sonja Henie, Norway
1931	Karl Schafer, Austria	Sonja Henie, Norway
1932	Karl Schafer, Austria	Sonja Henie, Norway
1933	Karl Schafer, Austria	Sonja Henie, Norway
1934	Karl Schafer, Austria	Sonja Henie, Norway
1935	Karl Schafer, Austria	Sonja Henie, Norway
1936	Karl Schafer, Austria	Sonja Henie, Norway
1937	Felix Kaspar, Austria	Cecilia Colledge, England
1938	Felix Kaspar, Austria	Megan Taylor, England
1939	Graham Sharp, England	Megan Taylor, England
1940–46	No competition	No competition
1947	Hans Gerschweiler, Switzerland	Barbara A. Scott, Canada
1948	Richard Button, U. S.	Barbara A. Scott, Canada
1949	Richard Button, United States	Aja Vrzanova, Czechoslovakia
1950	Richard Button, U. S.	Aja Vrzanova, Czech.
1951	Richard Button, United States	Jeannette Altwegg, England
1952	Richard Button, U. S.	Jacqueline du Bief, France
1953	Hayes A. Jenkins, U. S.	Tenley Albright, U. S.
1954	Hayes A. Jenkins, U. S.	Gundi Busch, Germany

1955 WORLD CHAMPIONSHIPS

(At Vienna, Austria, Feb. 15–18)

Men—Hayes Alan Jenkins, United States
Women—Tenley Albright, United States
Pairs—Frances Dafoe-Norris Bowden, Canada
Dance—Jean T. Westwood-Lawrence Demmy, Great Britain

European

Men—Alain Giletti, France
Women—Hanna Eigel, Austria
Pairs—Marianne and Laszlo Nagy, Hungary
Dance—Jean T. Westwood-Lawrence Demmy, Great Britain

North American

Men—Hayes Alan Jenkins
Women—Tenley Albright
Pairs—Frances Dafoe-Norris Bowden, Toronto
Dance—Carmel and Edward Bodel

UNITED STATES CHAMPIONS

Year	Men	Women
1914	Norman Scott	Theresa Weld
1915–17	No competition	No competition
1918	Nathaniel Niles	Mrs. R. S. Beresford
1919	No competition	No competition
1920	Sherwin Badger	Theresa Weld
1921	Sherwin Badger	Theresa Blanchard
1922	Sherwin Badger	Theresa Blanchard
1923	Sherwin Badger	Theresa Blanchard
1924	Sherwin Badger	Theresa Blanchard
1925	Nathaniel Niles	Beatrix Loughran
1926	C. I. Christenson	Beatrix Loughran
1927	Nathaniel Niles	Beatrix Loughran
1928	Roger Turner	Maribel Y. Vinson
1929	Roger Turner	Maribel Y. Vinson
1930	Roger Turner	Maribel Y. Vinson
1931	Roger Turner	Maribel Y. Vinson
1932	Roger Turner	Maribel Y. Vinson
1933	Roger Turner	Maribel Y. Vinson
1934	Roger Turner	Suzanne Davis
1935	Robin Lee	Maribel Y. Vinson
1936	Robin Lee	Maribel Y. Vinson
1937	Robin Lee	Maribel Y. Vinson
1938	Robin Lee	Joan Tozzer
1939	Robin Lee	Joan Tozzer
1940	Eugene Turner	Joan Tozzer
1941	Eugene Turner	Jane Vaughn
1942	Bobby Specht	Jane V. Sullivan
1943	Arthur R. Vaughn, Jr.	Gretchen Merrill
1944	Omitted	Gretchen Merrill
1945	Omitted	Gretchen Merrill
1946	Richard Button	Gretchen Merrill
1947	Richard Button	Gretchen Merrill
1948	Richard Button	Gretchen Merrill
1949	Richard Button	Yvonne Sherman
1950	Richard Button	Yvonne Sherman
1951	Richard Button	Sonya Klopfer
1952	Richard Button	Tenley Albright
1953	Hayes A. Jenkins	Tenley Albright
1954	Hayes A. Jenkins	Tenley Albright

1955 U. S. Championships

Men—Hayes Alan Jenkins, Colorado Springs, Colo.
Women—Tenley Albright, Newton Center, Mass.
Pairs—Carole Ann Ormaca-Robin Greiner, Berkeley, Calif.
Gold dance—Carmel and Edward Bodel, Orinda, Calif.
Silver dance—Barbara Stein-Ray C. Sato, Los Angeles
Men's junior—Tom Moore, Seattle
Women's junior—Nancy Heiss, New York
Junior pairs—Maribel Owen-Charles Foster, Boston
Men's novice—James Short, Los Angeles
Women's novice—Carol Wanek, New York

Canadian

Men—Charles Snelling, Toronto
Women—Carol Jane Pachl, Ottawa
Pairs—Frances Dafoe-Norris Bowden
Dance—Lindis and Jeffery Johnston, London, Ont.

Cunningham's Car Triumphs

Briggs Cunningham's British-made Jaguar captured the 12-hour Florida Grand Prix for sports cars at Sebring in 1955 by 10 seconds. Phil Walters of West Palm Beach, Florida, and Mike Hawthorne of England drove the Jaguar, which completed the 183 laps (951.6 miles) with an average of 79.3 m.p.h.

ICE (SPEED) SKATING

WORLD RECORDS

Source: International Skating Union (I.S.U.).

MEN

Meters	Time	Recordholder and country	Where made	Date
500	0:40.8	Jurij Sergeew, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 19, 1955
1,000	1:22.8	Eugeny Grishin, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 12, 1955
1,500	2:09.8	Eugeny Grishin, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 10, 1955
3,000	4:40.2	Anton Huiskes, Holland	Davos, Switz.	Jan. 24, 1953
5,000	7:45.6	Boris Shilkov, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 9, 1955
10,000	16:32.6	Hjalmar Andersen, Norway	Hamar, Norway	Feb. 10, 1952
All-around	184.638 pts.	Dimitry Sakunenko, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 9–10, 1955

WOMEN

Meters	Time	Recordholder and country	Where made	Date
500	0:45.6	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 11, 1955
1,000	1:33.4	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 12, 1955
1,500	2:25.5	Khalida Schegolewa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 30, 1953
3,000	5:13.8	Rimma Zhukowa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 23, 1953
5,000	9:01.6	Rimma Zhukowa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 24, 1953
All-around	203.920 pts.	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 21–22, 1955

NATIONAL SENIOR AMATEUR RECORDS

(Made in competition)

Source: Amateur Skating Union of the United States.

MEN'S OUTDOOR

Event	Time	Holder	Place	Date
220 yd.	18.1	Robert Fitzgerald	Minneapolis	1/10/43
440 yd.	35.4	Charles Gorman	Lake Placid	2/14/27
	35.4	Ken Bartholomew	St. Paul	1/25/42
	35.4	Robert Fitzgerald	Minneapolis	2/15/42
880 yd.	1:14.2	Robert Fitzgerald	Minneapolis	1/7/45
¾ mi.	1:55.8	Clas Thunberg	Saranac Lake	2/15/26
1 mi.	2:38.2	Clas Thunberg	Lake Placid	2/12/26
*1 mi.	2:29.7	Del Lamb	Oslo	2/19/48
2 mi.	5:33.8	Eddie Schroeder	Minneapolis	1/30/34
3 mi.	8:19.6	Ross Robinson	Lake Placid	2/14/30
5 mi.	14:30.4	Ross Robinson	Lake Placid	2/12/27

* Made on 400-meter track in Norway.

WOMEN'S OUTDOOR

Event	Time	Holder	Place	Date
220 yd.	20.2	Maddy Horn	Saranac Lake	2/11/39
		Pat Gibson	St. Paul	1/30/55
440 yd.	39.4	L. Neitzel	Minneapolis	2/3/29
880 yd.	1:25.9	Maddy Horn	Escanaba*	1/13/40
¾ mi.	2:17	Dot Franey	Minneapolis	1/16/37
1 mi.	3:06.1	Maddy Horn	Oconomowoc†	1/24/37

* Michigan. † Wisconsin.

WOMEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

Event	Time	Holder	Place	Date
220 yd.	21.6	Dot Franey	St. Paul	2/15/36
⅛ mi.	31.0	Dot Franey	St. Louis	2/25/33
440 yd.	41.6	Dot Franey	St. Paul	2/16/36
880 yd.	1:26.7	B. M. DeSchepper	Champaign	Mar. '54
¼ mi.	2:18.1	Kit Klein	Chicago	2/2/35
1 mi.	3:10.7	B. M. DeSchepper	Champaign	Mar. '54

FOR TRACKS 13 LAPS AND OVER

Event	Time	Holder	Place	Date
440 yd.	42	B. M. DeSchepper	Edmonton	4/23–25/53
½ mi.	1:26.4	B. M. DeSchepper	Milwaukee	3/5–6/55
¾ mi.	2:17.3	Pat Underhill	Milwaukee	3/5–6/55
1 mi.	3:07.2	Pat Underhill	Edmonton	4/23–25/53

MEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

Event	Time	Holder	Place	Date
220 yd.	18	F. Robson	Boston	1/13/11
⅛ mi.	23.8	C. Gorman	St. John*	3/1/27
440 yd.	36.8	C. Gorman	St. John	2/27/25
880 yd.	1:15.6	B. O'Sickey	Pittsburgh	3/1/16
¾ mi.	2:00.4	P. Johnston	Cleveland	3/2/28
1 mi.	2:41.2	Morris Wood–F. Robson	Pittsburgh	2/13/04
1½ mi.	4:25	Edmund Lamy	Cleveland	1/27/10
2 mi.	5:54.8	R. Heckenbach	St. Paul	1/30/37
3 mi.	8:58.8	P. Johnston	Pittsburgh	2/19/27
4 mi.	13:41.8	Joe Moore	Brooklyn	2/7/27
5 mi.	15:42.2	F. Stack	Chicago	2/8/30

* New Brunswick, Canada.

FOR TRACKS 13 LAPS AND OVER

Event	Time	Holder	Place	Date
440 yd.	39	Robert Olson	Edmonton	4/23–25/43
880 yd.	1:21.7	T. G. Hutchinson	Colo. Springs	4/23/49
¾ mi.	2:06.2	E. Babayan	Colo. Springs.	2/18/50
1 mi.	2:49.5	Edgar Dame	Edmonton	4/23–25/53
2 mi.	6:02.3	Edgar Dame	E. Lansing	3/28–29/52

LeBel Duo Triumphs

Leo LeBel of Lake Placid, N. Y., won the 1955 world barrel-jumping championship with a record leap of 28 feet 7 inches at the Grossinger (N. Y.) Country Club. He cleared 15 barrels. The previous record of 15 barrels for 28 feet 3 inches was set by Terry Browne of Detroit in 1952. LeBel's sister, Aldrina, took the women's world title with a record jump of 8 barrels for 18 feet 3 inches. She held the previous mark of 7 barrels for 15 feet 2 inches.

Winkler Keeps Crown

Hans Gunther Winkler of Germany retained the world equestrian title in 1955.

SOCCER

Source: Flannery News Bureau of New York.

National Challenge Cup Winners

Emblematic of United States Championship.

(Senior amateur and professional elevens eligible for tournaments.)

1914 Brooklyn (N. Y.) Field Club
1915 Bethlehem (Pa.) Steel Co. F. C.
1916 Bethlehem (Pa.) Steel Co. F. C.
1917 Fall River (Mass.) Rovers
1918 Bethlehem (Pa.) Steel Co. F. C.
1919 Bethlehem (Pa.) Steel Co. F. C.
1920 Ben Miller F. C., St. Louis, Mo.
1921 Robins Dry Dock F. C., Brooklyn, N. Y.
1922 Scullin Steel F. C., St. Louis, Mo.
1923 Paterson (N. J.) F. C.
1924 Fall River (Mass.) F. C.
1925 Shawsheen S. C., Andover, Mass.
1926 Bethlehem (Pa.) Steel Co. F. C.
1927 Fall River (Mass.) F. C.
1928 New York Nationals S. C.
1929 Hakoah All-Stars, New York
1930 Fall River (Mass.) F. C.
1931 Fall River (Mass.) F. C.
1932 New Bedford (Mass.) F. C.
1933 Stix, Baer & Fuller F. C., St. Louis, Mo.
1934 Stix, Baer & Fuller F. C., St. Louis, Mo.
1935 Central Breweries S. C., St. Louis, Mo.
1936 First German American S. C., Philadelphia
1937 New York Americans S. C.
1938 Sparta A. B. A., Chicago, Ill.
1939 St. Mary's Celtic S. C., New York
1940 No official champion*
1941 Pawtucket (R. I.) F. C.
1942 Gallatin S. C., Pittsburgh
1943 Brooklyn (N. Y.) Hispano S. C.
1944 Brooklyn (N. Y.) Hispano S. C.
1945 Brookhattan S. C., New York
1946 Vikings, Chicago
1947 Ponta Delgada F. C., Fall River, Mass.
1948 Joe Simpkins S. C., St. Louis, Mo.
1949 Morgan (Pa.) S. C.
1950 Joe Simpkins S. C., St. Louis, Mo.
1951 German-Hungarian S. C., New York
1952 Harmarville (Pa.) S. C.
1953 Chicago Falcons
1954 New York Americans

* Finalists: Baltimore (Md.) S. C. and Sparta A. B. A. Chicago, Ill.

National Amateur Challenge Cup Winners

1923 No official champion*
1924 Fleisher Yarn F. C., Philadelphia
1925 Toledo (Ohio) F. C.
1926 Defenders F. C., New Bedford, Mass.
1927 Heidelberg (Pa.) F. C.
1928 No official champion†
1929 Heidelberg (Pa.) F. C.
1930 Raffies F. C., Fall River, Mass.
1931 Goodyear F. C., Akron, Ohio
1932 Shamrock S. C., Cleveland, Ohio
1933 German American S. C., Philadelphia
1934 German American S. C., Philadelphia
1935 W. W. Riehl S. C., Castle Shannon, Pa.
1936 First German S. C., Brooklyn, N. Y.
1937 Highlander F. C., Trenton, N. J.
1938 Ponta Delgada F. C., Fall River, Mass.
1939 St. Michael's A. C., Fall River, Mass.
1940 Morgan-Strasser S. C., Morgan, Pa.
1941 Fall River (Mass.) S. C.
1942 Fall River (Mass.) S. C.
1943 Morgan-Strasser S. C., Morgan, Pa.
1944 Eintracht S. C., New York
1945 Eintracht S. C., New York
1946 Ponta Delgada F. C., Fall River, Mass.
1947 Ponta Delgada F. C., Fall River, Mass.
1948 Ponta Delgada F. C., Fall River, Mass.
1949 Elizabeth (N. J.) Sport Club
1950 Ponta Delgada F. C., Fall River, Mass.
1951 German-Hungarian S. C., New York
1952 St. Louis Raiders
1953 Ponta Delgada, Fall River, Mass.
1954 Beadling (Pa.) S. C.

* Medals to semifinalists: Fleisher Yarn F. C., Philadelphia; Roxbury (Mass.) F. C.; Jeannette (Pa.) F. C.; Swedish American A. A., Chicago, Ill. † Finalists: Powers-Hudson-Essex F. C., Fall River, Mass.; and Swedish American A. C., Detroit, Mich.

HICKOK AWARD WINNERS

The richest award in sports is the $10,000 Ray Hickok Belt, which annually goes to the professional athlete of the year, as selected in a poll of sportswriters and sportscasters throughout the country. The winners:

1950—Phil Rizzuto (baseball)
1951—Allie Reynolds (baseball)
1952—Rocky Marciano (boxing)
1953—Ben Hogan (golf)
1954—Willie Mays (baseball)

1955 BRITISH SOCCER CHAMPIONS

Source: Jim Kelly, 2889 Bainbridge Ave., New York 58, N. Y.

International—England

English

League (Division I)—Chelsea
League (Division II)—Birmingham City
League (Division III, South)—Bristol City
League (Division III, North)—Barnsley
Cup—Newcastle United

Scottish

League (Division "A")—Aberdeen
League (Division "B")—Airdrieonians
Cup—Clyde

Welsh

League (Division I, South)—Newport County
League (Division I, North)—Flint Town United
Cup—Barry Town

Irish

League—Linfield Cup—Dundela

DOG SHOWS

Source: The American Kennel Club.

Morris and Essex Kennel Club Exhibition

Year	Best in show	Breed	Owner
1927	Ch. Higgins' Red Pat	Irish setter	William W. Higgins
1928	Ch. Delf Discriminate of Pinegrade	Sealyham terrier	Pinegrade Kennels
1929	Ch. Little Emir	Pomeranian	Mrs. V. Matta
1930	Ch. Weltona Frizzette of Wildoaks	Fox terrier, wire	Mr. and Mrs. R. C. Bondy
1931	Ch. Fionne v Loheland of Walnut Hall	Great dane	Harkness Edwards
1932	Ch. Lone Eagle of Earlsmoor	Fox terrier, wire	Dr. and Mrs. S. Milbank
1933	Eppingeville of Blarney	Fox terrier, wire	John G. Bates
1934	Ch. Gunside Babs of Hollybourne	Sealyham terrier	S. L. Froelich
1935	Ch. Milson O'Boy	Irish setter	Mrs. Cheever Porter
1936	Ch. Mr. Reynal's Monarch	Harrier	Amory L. Haskell
1937	Ch. Sturdy Max	English setter	Maridor Kennels
1938	Ch. Ideal Weather	Old English sheep dog	Leonard Collins
1939	Ch. My Own Brucie	Cocker spaniel	H. E. Mellenthin
1940	Ch. Blakeen Jung Frau	Poodle, standard	Blakeen Kennels
1941	Ch. Nornay Saddler	Fox terrier, smooth	Wissaboo Kennels
1946	Ch. Benbow's Beau	Cocker spaniel	Robert A. Gusman
1947	Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1948	Ch. Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1950	Ch. Tyronne Farm Clancy	Irish setter	Jack Spear
1951	Ch. Rock Falls Colonel	English setter	William T. Holt
1952	Ch. Wyretex Wyns Traveller of Trucote	Fox terrier, wire	Mrs. Leonard Smit
1953	Ch. Rancho Dobe's Storm	Doberman pinscher	Mr. and Mrs. Len Carey

Westminster Kennel Club Exhibition

1907–09	Ch. Warren Remedy	Fox terrier, smooth	Winthrop Rutherfurd
1910	Ch. Sabine Rarebit	Fox terrier, smooth	Sabine Kennels
1911	Ch. Tickle Em Jock	Scottish terrier	A. Albright, Jr.
1912	Ch. Kenmore Sorceress	Airedale terrier	William P. Wolcott
1913	Ch. Strathway Prince Albert	Bulldog	Alex H. Stewart
1914	Ch. Brentwood Hero	Old English sheep dog	Mrs. Tyler Morse
1915–16	Ch. Matford Vic	Fox terrier, wire	George W. Quintard
1917	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1918	Ch. Haymarket Faultless	Bull terrier	R. H. Elliot
1919	Ch. Briergate Bright Beauty	Airedale terrier	G. L. L. Davis
1920	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1921	Ch. Midkiff Seductive	Cocker spaniel	William T. Payne
1922	Ch. Boxwood Barkentine	Airedale terrier	Frederic C. Hood
1923	No best in show award		
1924	Ch. Barberryhill Bootlegger	Sealyham terrier	Bayard Warren
1925	Ch. Governor Moscow	Pointer	Robert F. Maloney.
1926	Ch. Signal Circuit	Fox terrier, wire	Halleston Kennels
1927	Ch. Pinegrade Perfection	Sealyham terrier	Frederic C. Brown
1928	Ch. Talavera Margaret	Fox terrier, wire	R. M. Lewis
1929	Land Loyalty of Bellhaven	Collie	Mrs. Florence B. Ilch
1930–31	Ch. Pendley Calling of Blarney	Fox terrier, wire	John G. Bates
1932	Ch. Nancolleth Markable	Pointer	Giralda Farms
1933	Ch. Warland Protector of Shelterock	Airedale terrier	S. M. Stewart
1934	Ch. Flornell Spicy Bit of Halleston	Fox terrier, wire	Halleston Kennels
1935	Ch. Nunsoe Duc de la Terrace of Blakeen	Poodle	Blakeen Kennels
1936	Ch. St. Margaret Magnificent of Clairedale	Sealyham terrier	Clairedale Kennels
1937	Ch. Flornell Spicy Piece of Halleston	Fox terrier, wire	Halleston Kennels
1938	Daro of Maridor	English setter	Maridor Kennels
1939	Ferry v. Rauhfelsen of Giralda	Doberman pinscher	Giralda Farms
1940–41	Ch. My Own Brucie	Cocker spaniel	H. E. Mellenthin
1942	Ch. Wolvey Pattern Edgerstoune	West Highland terrier	Mrs. John G. Winant
1943	Ch. Pitter Patter of Piperscroft	Miniature poodle	Mrs. P. H. B. Frelinghuysen
1944	Ch. Flornell Rare-Bit of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1945	Shieling's Signature	Scottish terrier	Mr. and Mrs. T. H. Snethen
1946	Ch. Hetherington Model Rhythm	Fox terrier, wire	Mr. and Mrs. T. H. Carruthers III
1947	Ch. Warlord of Mazelaine	Boxer	Mr. and Mrs. R. C. Kettles, Jr.
1948	Ch. Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Mazelaine's Zazarac Brandy	Boxer	Mr. and Mrs. John P. Wagner
1950	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1951	Ch. Bang Away of Sirrah Crest	Boxer	Dr. and Mrs. R. C. Harris
1952	Ch. Rancho Dobe's Storm	Doberman pinscher	Mr. and Mrs Len Carey
1953	Ch. Topflight Template of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1954	Ch. Carmer's Rise and Shine	Cocker Spaniel	Mrs. Carl E. Morgan

Standard Measurements in Sports

BASEBALL

Home plate to pitcher's box—60 feet 6 inches.
Plate to second base—127 feet 3⅜ inches.
Distance from base to base (home plate included)—90 feet.
Size of bases—15 inches by 15 inches.
Pitcher's plate—24 inches by 6 inches.
Batter's box—6 feet by 4 feet.
Home plate—17 inches by 17 inches, cut to a point at rear.
Home plate to backstop—Not less than 60 feet.
Weight of ball—Not less than 5 ounces nor more than 5¼ ounces.
Circumference of ball—Not less than 9 inches nor more than 9¼ inches.
Bat—Must be round, not over 2¾ inches in diameter at thickest part, nor more than 42 inches in length, and of hardwood in one piece or laminated.

FOOTBALL

* Length of field—120 yards.
Width of field—53⅓ yards (160 feet).
Height of goal posts—20 feet.
Height of crossbar—10 feet.
Width of goal posts—18 feet 6 inches, inside to inside, and not more than 19 feet 2 inches, outside to outside.
Length of ball—11¼ inches (long axis).
Circumference of ball—21.5 inches (middle); 28.5 inches (long axis).

* Includes 10 yards of end zone on either side.

LAWN TENNIS

Size of court—Rectangle 78 feet long and 27 feet wide (singles); 78 feet long and 36 feet wide (doubles).
Height of net—3 feet in center, gradually rising to reach 3-foot 6-inch posts at each side of court.
Ball—Shall be more than 2½ inches and less than 2⅝ inches in diameter and weigh more than 2 ounces and less than 2⅙ ounces.
Service line—21 feet from net.

POLO

Playing Field—300 yards long by 200 yards wide, if unboarded; 300 by 160, if boarded. In addition, there is an area of about 10 yards from the sidelines and about 30 yards from the back lines known as the safety zone.
Goals—8 yards wide and at least 10 feet high. The posts must be light enough to break if collided with.
Ball—Should not exceed 3¼ inches in diameter and should weigh from 4¼ to 4¾ ounces. Usually made of wood, but experiments have been made with plastic balls.
Ponies—No restrictions on height of mounts.

GOLF

Weight of ball—Not greater than 1.620 ounces.
Size of ball—Not less than 1.680 inches in diameter.
Velocity of ball—Not greater than 250 feet per second.
Hole—Shall be 4¼ inches in diameter and at least 4 inches deep.
Clubs—No restrictions on the size; 14 is the maximum number permitted in championship competition.

ICE HOCKEY

Size of rink—200 feet long by 85 feet wide (desired size).
Size of goal—6 feet wide by 4 feet in height.
Puck—1 inch thick and 3 inches in diameter; made of vulcanized rubber; weight—6¼ ounces (unofficial).
Length of stick—Not more than 53 inches from heel to end of shaft nor 14¾ inches from heel to end of blade. Blade should not exceed 3 inches in height, except goalkeeper's stick, which shall not exceed 3½ inches in height except at the heel, where it must not exceed 4½ inches.

BASKETBALL

(National Collegiate A. A. Rules)

Playing court—94 feet long by 50 feet wide (maximum dimensions); 74 feet long by 42 feet wide (minimum dimensions).
Baskets—Rings 18 inches in inside diameter, with white cord nets, 15 to 18 inches in length. Each ring is made of metal and is not more than ⅝ of an inch in diameter.
Height of basket ring—10 feet.
Weight of ball—Not less than 20 ounces nor more than 22.
Circumference of ball—No greater than 30 inches and not less than 29½.
Free-throw line—15 feet from the face of the backboard.

BOXING

Size of ring—The matches take place in an area, not less than 18 nor more than 20 feet square. It is enclosed by three 1-inch covered ropes. The floor has a 2-inch padding that extends at least 6 inches beyond the roped area in the case of elevated rings and 3 feet if the ring is at floor level.
Gloves—In professional fights, 8-ounce gloves generally are used, except in title contests, where 6-ounce gloves are the custom. The A.A.U. requires 8-ounce gloves up to the welterweight class and 10-ounce for the heavier divisions. College rules call for a minimum of 1[illegible] ounces.

CYCLING

WORLD RECORDS

Source: Otto Eisele, Associate Editor, *American Bicyclist.*

OUTDOOR PROFESSIONAL

Unpaced Standing Start

Distance	Holder and country	Where made	Year	Time
1 kilometer	R. H. Harris, Great Britain	Milan	1952	1:08⅗
5 kilometers	F. Battesini, Italy	Milan	1938	6:21
10 kilometers	M. Archambaud, France	Milan	1937	12:53
20 kilometers	M. Archambaud, France	Milan	1937	25:59⅗
100 kilometers	M. de Benedetti, Italy	Milan	1942	2:20:44⅘
1 hour	F. Coppi, Italy	Milan	1942	28 mi. 805 yd.

INDOOR PROFESSIONAL

Unpaced Standing Start

1 kilometer	R. H. Harris, Great Britain	Paris	1952	1:09

Motor-Paced*

100 kilometers	J. Lohmuller, Switzerland	Paris	1952	1:29:37.2
1 hour	J. Goutorbe, France	Paris	1952	71 km. 268 m.

* Third U. C. I. regulations (1933, etc.).

OUTDOOR AMATEUR (Unpaced Standing Start)

1 kilometer	R. Vargachine, Russia	Moscow	1953	1:10⅖
5 kilometers	A. Kazianka, Italy	Milan	1954	6:25⅗
10 kilometers	F. Aureggi, Italy	Milan	1952	13:03⅖
20 kilometers	E. Baldini, Italy	Milan	1954	26:29⅗
100 kilometers	A. Milesi, Italy	Milan	1954	2:29:08⅕
1 hour	E. Baldini, Italy	Milan	1954	27 mi. 1,550 yd.

NATIONAL AMATEUR CHAMPIONS

Source: Amateur Bicycle League of America, Inc.

Year	Winner	Where held	Year	Winner	Where held
1921	Arthur Nieminsky, New York	Washington, D. C.	1939	Martin Deras, California	Columbus
1922	Carl Hambacher, New Jersey	Atlantic City	1940	Furman Kugler, New Jersey	Detroit
1923	Charles Barclay, California	Chicago	1941	Marvin Thomson, Illinois	Pasadena, Calif.
1924	Charlie Winter, New York	Buffalo	1945	Ted Smith, New York	Chicago
1925	Edward Merkner, Illinois	St. Louis	1946	Don Hester, California	Columbus
1926	Edward Merkner, Illinois	Philadelphia	1947	Ted Smith, New York	Philadelphia
1927	Jimmy Walthour, Jr., New York	Louisville	1948	Ted Smith, New York	Kenosha, Wis.
1928	R. J. Connor, District of Columbia	Kenosha, Wis.	1949	James Lauf, Maryland	San Diego, Calif.
1929	Sergio Matteini, New York	Newark, N. J.	1950	Robert Pfarr, Wisconsin	New Brunswick
1930	Bobby Thomas, Wisconsin	Keonsha, Wis.	1951	Gus Gatto, California	Columbus
1935	Cecil Hursey, Georgia	Atlantic City	1952	Steve Hromjak, Ohio	New Brunswick
1936	Jackie Simes, New Jersey	St. Louis	1953	Ronald Rhoads, California	St. Louis
1937	Charles Bergna, New Jersey	Buffalo	1954	Jack Disney, California	Minneapolis

AMATEUR BICYCLE LEAGUE OF AMERICA RECORDS

ROAD COMPETITION—SCRATCH

Distance, mi.	Time	Record-holder and where made	Date
1/4	:29 2/5	B. W. King, Atlantic City, N. J.	Sept. 16, 1922
1/3	:38 3/5	Charles Winters, Chicago, Ill.	Sept. 8, 1923
1/2	1:04 3/5	John Leahy, Louisville, Ky.	Sept. 11, 1927
1	2:02	Henry Surman, R. L. Guthridge, S. C. Haberle — Westfield, N. J.	Aug. 8, 1908
2	4:46 1/5	Theodore Becker, Louisville, Ky.	Sept. 10, 1927
3	7:18 2/5	Don Sheldon, Columbus, Ohio	Aug. 18, 1946
5	11:38	Vaughan Angell, Columbus, Ohio	Aug. 4, 1951
10	23:22 1/5	Gus Gatto, Columbus, Ohio	Aug. 5, 1951
15	48:40 2/5	Jackie W. Simes, Jr., Washington, D. C.	Oct. 11, 1936
20	45:22	A. E. Wahl, Buffalo, N. Y.	July 4, 1921
25	1:02:14	Charles R. Thomas, Tonawanda, N. Y.	Sept. 6, 1937
50	2:02:00	Leo Adams, Buffalo, N. Y.	July 14, 1935
100	4:33:25 1/5	Louis Maltese, Union City, N. J., to South Philadelphia, Pa.	June 6, 1926
125	6:20:20 4/5	Don Sheldon, Old Westbury, N. Y.	Oct. 19, 1947
200	9:56:49	Everett Cassagneres, Pittsburgh, Pa.	Oct. 4, 1951

BILLIARDS

APPARENTLY nobody knows where billiards originated. Some trace the game back to ancient Greece or early Egyptian days; others insist it originated in France or England in medieval times. Shakespeare must have believed the Egyptian tale, because in *Antony and Cleopatra* he has Cleopatra saying: "Let's to billiards; come, Charmian." There is an illustration of Louis XIV of France playing billiards in 1694 and using a shovel-shaped stick to set the "cue ball" in motion, from which it is evident that the pointed cue was a later development.

Certainly the game was popular in England and on the Continent in the 17th and 18th centuries and early settlers in North America are supposed to have introduced the game here. How to apply "english" to a billiard ball was discovered by Jack Carr, an Englishman, in 1820. A Frenchman named Mingaud is credited with having invented the "draw" shot at about the same time and also to have devised leather tips for wooden cues. Championship competition, amateur and professional, is a modern development in billiards. The first formal professional tournament held in the United States took place in New York in 1863 with eight players competing. The first three-cushion tournament was held in St. Louis in 1878

Billiards Statistics

Source: Press Service Bureau, The Billiard Congress of America.

World Three-cushion Champions

1878	Leon Magnus	1912	John Horgan	1920	John Layton	1935	Welker Cochran
1899	W. H. Catton	1913-14	Alfredo DeOro	1921	Augie Kieckhefer	1936	Willie Hoppe
1900	Eugene Carter	1915	George Moore	1921-23	John Layton	1937	Welker Cochran
1900	Lloyd Jevne	1915	William H. Huey	1923	Tiff Denton	1938	Welker Cochran
1907	Harry P. Cline	1916	Alfredo DeOro	1924	R. L. Cannafax	1939	Joe Chamaco
1908	John Daly	1916	Charles Ellis	1925	R. L. Cannafax	1940-44	Willie Hoppe
1908	Thomas Hueston	1916	Charles McCourt	1926-27	Otto Reiselt	1944	Welker Cochran
1908-09	Alfredo DeOro	1916	Hugh Heal	1927	Augie Kieckhefer	1945-46	Welker Cochran
1910	Fred Eames	1916	George Moore	1928	Otto Reiselt	1947	Willie Hoppe
1910	Alfredo DeOro	1917	Charles McCourt	1928-29	John Layton	1948	Willie Hoppe
1910	John Daly	1917	R. L. Cannafax	1930	John Layton	1949	Willie Hoppe
1910	Thomas Hueston	1917-18	Alfredo DeOro	1931	Arthur Thurnblad	1950	Willie Hoppe
1911	John Daly	1918-19	Augie Kieckhefer	1932	Augie Kieckhefer	1951	Willie Hoppe
1911	Alfredo DeOro	1919	Alfredo DeOro	1933	Welker Cochran	1952	Willie Hoppe
1912	Joe Carney	1919	R. L. Cannafax	1934	John Layton	1953	Ray Kilgore

THREE-CUSHION RECORDS

High Runs

Year	Holder	Event	Points
1915	Charles Morin	Tournament (Pro)	18
1919	Tiff Denton	Tournament (World)	17
1926	John Layton	Interstate League	18
1927	Willie Hoppe	American League	20
1928	Willie Hoppe	Exhibition vs. C. C. Peterson	25
1930	Gus Copulos	Tournament (World)	17
1936	Willie Hoppe	Match play	15
1939	Joe Chamaco	National League*	18
1940	Tiff Denton	Tournament†	17
1945	Willie Hoppe	Match play‡	20

* No safeties. † Safeties. ‡ No safeties; optional cue ball first shot of inning.

High Averages—Best Game

Year	Holder	Points	Event
1925	Otto Reiselt	50 in 16 innings	Interstate League
1925	Otto Reiselt	100 in 57 innings	Interstate League
1925	Otto Reiselt	150 in 104 innings	Interstate League
1930	John Layton	50 in 23 innings	Tournament
1939	Joe Chamaco	50 in 23 innings	National League*
1940	Jay N. Bozeman	50 in 23 innings	Tournament†
1945	Willie Hoppe	50 in 20 innings	Tournament‡
1945	Welker Cochran	60 in 20 innings	Match
1947	Willie Hoppe	60 in 21 innings	Match‡

* No safeties. † Safeties. ‡ No safeties; optional cue ball first shot of inning.

National Amateur Three-cushion Champions

1910—Pierre Maupome	1925–26—Dr. A. J. Harris	1931—Frank Flemming	1946—Edward Lee†
1911—Charles Morin	1927—Dr. L. P. Macklin	1931–35—Edward Lee	1946—Robert M. Lord†
1919—Arthur Newman	1928—J. N. Bozeman	1936—Edward Lee*	1947—Robert M. Lord†
1920—W. B. Huey	1929—Charles Jordan	1937—A. Primeau	1948—Robert M. Lord†
1921—Earl Lookabaugh	1929—Max Shimon	1938—Gene Deardorff	1948—C. T. Vandenover‡
1922—Frank Flemming	1930—Joseph Hall	1939—Gene Deardorff	1948–54—Edward Lee†
1923—Robert M. Lord	1930—Max Shimon	1945–46—C. T. Vandenover†	
1924—Frank Flemming	1930—R. B. Harper		

* World champion. † Events limited to athletic clubs. ‡ Match.

U. S. Wins Tuna Tourney

The United States team, with 1,185 points, won the 1955 international tuna tournament off Wedgeport, Nova Scotia. Al M. Whisnant, Jr. of New York boated a 585-pound tuna as the U. S. scored its first victory in the Alton B. Sharp Trophy competition since 1949. Afredo A. Behrens of Venezuela caught a 277-pound bluefin to give his country second place.

World Pocket Billiard Champions

1878-80	Cyrille Dion	1901	Frank Sherman	1912	R. J. Ralph	1937	Ralph Greenleaf
1881	Gottlieb Wahlstrom	1901	Alfredo DeOro	1913	Alfredo DeOro	1938	James Caras
1882-83	Albert Frey	1902	William Clearwater	1913-15	Bennie Allen	1939	James Caras
1884	J. L. Malone	1902	Grant Eby	1916	John Layton	1940	Andrew Ponzi (l)
1886-87	Alfred Frey	1903	Alfredo DeOro	1916-18	Frank Taberski	1941	Willie Mosconi (l)
1887	J. L. Malone (f)	1904	Alfredo DeOro	1919-24	Ralph Greenleaf	1941	Erwin Rudolph (t)
1887-88	Alfredo DeOro	1905	Jerome Keogh (f)	1925	Frank Taberski	1942	Irving Crane (m)
1888	Frank Powers	1905	Alfredo DeOro	1926	Ralph Greenleaf	1942	Willie Mosconi (t)
1889	Albert Frey	1905	Thomas Hueston (f)	1926	Erwin Rudolph	1943	Andrew Ponzi (m)
1889	Alfredo DeOro	1906	Thomas Hueston	1926	Thomas Hueston	1944	Willie Mosconi (m)
1890	H. Manning	1906	John Horgan	1927	Frank Taberski	1945	Willie Mosconi
1891	Frank Powers (f)	1906	Jerome Keogh	1927-28	Ralph Greenleaf	1946	Willie Mosconi
1892-94	Alfredo DeOro	1907	Thomas Hueston	1928	Frank Taberski	1946	Irving Crane (t)
1895	William Clearwater	1908	Thomas Hueston	1929	Ralph Greenleaf	1947	Willie Mosconi (m)
1895	Alfredo DeOro	1908	Frank Sherman	1929	Frank Taberski	1948	Willie Mosconi (m)
1896	Frank Stewart (f)	1908	Alfredo DeOro	1930	Erwin Rudolph	1949	Jimmy Caras (t)
1897	Grant Eby	1909	Charles Weston	1930-32	Ralph Greenleaf	1950	Willie Mosconi (t)
1897	Jerome Keogh	1909	John Kling	1933-34	Erwin Rudolph	1951	Willie Mosconi (t)
1898	William Clearwater	1910	Thomas Hueston	1935	Andrew Ponzi	1952	Willie Mosconi (t)
1898	Jerome Keogh	1910	Jerome Keogh	1936	James Caras	1953	Willie Mosconi (t)
1899-1900	Alfredo DeOro	1910-12	Alfredo DeOro				

(f) Forfeit. (l) League play. (t) Tourney. (m) Match.

POCKET BILLIARD RECORDS

(14.1 Championship Game)

Event		Holder	Year
Tournament—high run	126	Ralph Greenleaf	1929
Tournament—high run	125	Bennie Allen	1935
Tournament—high run	125	George Kelly	1935
Tournament—high run	125	Willie Mosconi	1945
Tourney (world)—high run	121	Willie Mosconi	1952
Exhibition—high run	526	Willie Mosconi	1954
Tournament—high single game average	63	Ralph Greenleaf	1929
Tournament—high grand average*	18.75	Willie Mosconi	1951

* 4½ by 9 table. † Tied by Willie Mosconi in 1946.

Event		Holder	Year
Tournament—best game in innings	2	Ralph Greenleaf	1929†
Tournament (national)—best game in innings	2	Irving Crane	1949
Tournament (world)—best game in innings	2	Willie Mosconi	1952‡
Match—high run for single game	127	Willie Mosconi	1945
Match—high run for single game	127	James Caras	1946
Match—high run in continuous play	153	Andrew Ponzi	1934

‡ Tied by Mosconi in 1953.

Record of Fastest Mile Runs

Foot-racing history was made on May 28, 1955, when three men ran a mile in less than 4 minutes at London, England. The victor was Laszlo Tabori of Hungary, who was timed in 3:59. Chris Chataway of England, the runner-up, was six feet behind Tabori and inches back of Chataway was Brian Hewson, also of England. Chataway and Hewson had identical clockings of 3:59.8. It was the first time that three runners had cracked the 4-minute barrier in a single race.

The record of the world's fastest miles:

Time	Runner and country	Site	Date
3:58.0	John Landy, Australia	Turku, Finland	June 21, 1954
3:58.8	Roger Bannister, England	Vancouver, B. C.	Aug. 7, 1954
3:59.0	Laszle Tabori, Hungary	London, England	May 28, 1955
3:59.4	Roger Bannister, England	Oxford, England	May 6, 1954
3:59.6	*John Landy, Australia	Vancouver, B. C.	Aug. 7, 1954
3:59.8	*Chris Chataway, England	London, England	May 28, 1955
3:59.8	†Brian Hewson, England	London, England	May 28, 1955
4:00.5	Wes Santee, United States	Austin, Texas	April 2, 1955
4:00.6	Wes Santee, United States	Compton, Calif.	June 4, 1954
4:00.7	Wes Santee, United States	Los Angeles, Calif.	June 11, 1954
4:00.8	Chris Chataway, England	Aldershot, England	July 2, 1955
4:01.2	Wes Santee, United States	Compton, Calif.	June 3, 1955
4:01.3	Wes Santee, United States	Kansas City, Mo.	May 29, 1954
4:01.4	Gunder Hagg, Sweden	Malmo, Sweden	July 17, 1945
4:01.4	*Bobby Seaman, United States	Compton, Calif.	June 3, 1955
4:01.6	Arne Andersson, Sweden	Malmo, Sweden	July 18, 1944
4:01.6	John Landy, Australia	Turku, Finland	May 31, 1954
4:01.6	John Landy, Australia	Stockholm, Sweden	June 8, 1954

* Finished second. † Finished third. The world indoor record is 4:03.6, set by Gunnar Nielsen of Denmark at Madison Square Garden, New York, Feb. 5, 1955.

TRACK AND FIELD

Running, jumping, hurdling and throwing weights—track and field sports, in other words—are as natural to boys and young men as eating, drinking and breathing. Unorganized competition in this form of sport goes back beyond the Cave Man era. Organized competition begins with the first recorded Olympic Games in Greece, 776 B. C., when Coroebus of Elis won the only event on the program, a race of approximately 200 yards. The Olympic Games, with an ever-widening program of events, continued until "the glory that was Greece" had faded and "the grandeur that was Rome" was tarnished, and finally were abolished by decree of Emperor Theodosius I of Rome in A. D. 394. The Tailteann Games of Ireland are supposed to have antedated the first Olympic Games by some centuries, but we have no records of the specific events and winners thereof.

Professional contests of speed and strength were popular at all times and in many lands, but the widespread competition of amateur athletes in track and field sports is a comparatively modern development. The first organized amateur athletic meet of record was sponsored by the Royal Military Academy at Woolwich, England, in 1849. Oxford and Cambridge track and field rivalry began in 1864 and the English amateur championships were established in 1866. In the United States such organizations as the New York Athletic Club and the Olympic Club of San Francisco conducted track and field meets in the 1870's, and a few colleges joined to sponsor a meet in 1874. The success of the college meet led to the formation of the Intercollegiate Association of Amateur Athletes of America and the holding of an annual set of championship games beginning in 1876.

Many athletic clubs joined the National Association of Amateur Athletes of America, formed in 1879, but dissension broke up this organization and the Amateur Athletic Union, organized in 1888, has been the ruling body in American amateur athletics since that time.

Track and Field Statistics

Source: Official A.A.U. Track and Field Rules and Records Book. Reprinted by courtesy of the publishers, the Amateur Athletic Union of the United States, 233 Broadway, New York, N. Y.

MEN'S WORLD RECORDS

Recognized by the International Amateur Athletic Federation as of Jan. 31, 1955

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.	9.3 s.	Melvin E. Patton	United States	Fresno, Calif.	May 15, 1948
		Hector Hogan	Australia	Sydney	Mar. 13, 1954
220 yd.	20.2 s.	Melvin E. Patton	United States	Los Angeles	May 7, 1949
440 yd.	46 s.	Herbert McKenley	Jamaica, B.W.I.	Berkeley, Calif.	June 5, 1948
880 yd.	1 m. 48.6 s.	Malvin Whitfield	United States	Turku, Finland	July 17, 1953
		Gunnar Nielsen	Denmark	Copenhagen	Sept. 30, 1954
1 mi.	3 m. 58 s.	John Landy	Australia	Turku, Finland	June 21, 1954
2 mi.	8 m. 40.4 s.	Gaston Reiff	Belgium	Paris	Aug. 26, 1952
3 mi.	13 m. 26.4 s.	Vladimir Kut	U.S.S.R.	Prague	Oct. 23, 1954
6 mi.	27 m. 59.2 s.	Emil Zatopek	Czechoslovakia	Brussels	June 1, 1954
10 mi.	48 m. 12 s.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Sept. 29, 1951
15 mi.	1 h. 16 m. 26.4 s.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Oct. 26, 1952
1 hr.	12 mi. 810 yd.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Sept. 29, 1951

WALKING

Event	Record	Holder	Home country	Where made	Date
2 mi.	12 m. 45 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5 mi.	35 m. 15 s.	Roland Hardy	Gt. Britain	London	May 31, 1952
7 mi.	48 m. 15.2 s.	Werner Hardmo	Sweden	Kumla, Sweden	Sept. 9, 1945
10 mi.	1 h. 10 m. 45.8 s.	J. Dolezal	Czechoslovakia	Boleslav, Czech.	April 30, 1954
20 mi.	2 h. 33 m. 9.4 s.	J. Dolezal	Czechoslovakia	Boleslav, Czech.	May 14, 1954
30 mi.	4 h. 21 m. 11 s.	J. Ljunggren	Sweden	Fristad, Sweden	Aug. 8, 1952
1 hr.	8 mi. 1052 yd.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	15 mi. 1591 yd. 1 ft.	J. Dolezal	Czechoslovakia	Prague	Oct. 12, 1952

RUNNING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
100 meters	10.2 s.	Jesse Owens	United States	Chicago	June 20, 1936
		Harold Davis	United States	Compton, Calif.	June 6, 1941
		Lloyd LaBeach	Panama	Fresno, Calif.	May 15, 1948
		N. H. Ewell	United States	Evanston, Ill.	July 9, 1948
		E. McD. Bailey	Gt. Brit. & N. Ire.	Belgrade	Aug. 25, 1951
		Heinz Futterer	Germany	Yokohama, Japan	Oct. 31, 1954
200 m.	20.2 s.	Melvin E. Patton	United States	Los Angeles	May 7, 1949
400 m.	45.8 s.	George Rhoden	Jamaica, B.W.I.	Eskilstuna, Sweden	Aug. 22, 1950
800 m.	1 m. 46.6 s.	Rudolph Harbig	Germany	Milan	July 15, 1939
1,000 m.	2 m. 19.5 s.	Audun Boysen	Norway	Gavle, Sweden	Aug. 18, 1954
1,500 m.	3 m. 41.8 s.	John Landy	Australia	Turku	June 21, 1954
2,000 m.	5 m. 7 s.	Gaston Reiff	Belgium	Brussels	Sept. 29, 1948
3,000 m.	7 m. 58.8 s.	Gaston Reiff	Belgium	Gavle, Sweden	Aug. 12, 1949
5,000 m.	13 m. 51.2 s.	Vladimir Kut	U.S.S.R.	Prague	Oct. 23, 1954
10,000 m.	28 m. 54.2 s.	Emil Zatopek	Czechoslovakia	Brussels	June 1, 1954
15,000 m.	44 m. 54.6 s.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
20,000 m.	59 m. 51.6 s.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
25,000 m.	1 h. 19 m. 11.8 s.	Emil Zatopek	Czechoslovakia	Boleslav	Oct. 26, 1952
30,000 m.	1 h. 35 m. 23.8 s.	Emil Zatopek	Czechoslovakia	Boleslav	Oct. 26, 1952
1 hr.	20,052 meters 40 cm.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951

WALKING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
3,000 m.	11 m. 51.8 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5,000 m.	20 m. 26.8 s.	Werner Hardmo	Sweden	Kumla	July 31, 1945
10,000 m.	42 m. 39.6 s.	Werner Hardmo	Sweden	Kumla	Sept. 9, 1945
15,000 m.	1 h. 5 m. 59.6 s.	J. Dolezal	Czechoslovakia	Boleslav	April 30, 1954
20,000 m.	1 h. 30 m. 26.4 s.	J. Dolezal	Czechoslovakia	Boleslav	Nov. 1, 1953
30,000 m.	2 h. 21 m. 38.6 s.	J. Dolezal	Czechoslovakia	Prague	Oct. 12, 1952
50,000 m.	4 h. 29 m. 58 s.	J. Ljunggren	Sweden	Fristad, Sweden	Aug. 8, 1953
1 hr.	13,812 m.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	25,595 m.	J. Dolezal	Czechoslovakia	Prague	Oct. 12, 1952

HURDLES (10 hurdles)

Event	Record	Holder	Home country	Where made	Date
120 yd.	13.5 s.	R. A. Attlesey	United States	Fresno, Calif.	May 13, 1950
220 yd.	22.3 s.	Harrison Dillard	United States	Salt Lake City, Utah	June 21, 1947
440 yd.	51.3 s.	Yuriy Lituyev	U.S.S.R.	London	Oct. 13, 1954
110 m.	13.5 s.	R. A. Attlesey	United States	Helsinki	July 10, 1950
200 m.	22.3 s.	Fred Wolcott	United States	Princeton, N. J.	June 8, 1940
		Harrison Dillard	United States	Salt Lake City, Utah	June 21, 1947
400 m.	50.4 s.	Yuriy Lituyev	U.S.S.R.	Budapest	Sept. 20, 1953

RELAY RACES

Event	Record	Holder	Home country	Where made	Date
440 yd. (4 x 110)	40.5 s.	Univ. of So. California (L. LaFond, W. C. Anderson, P. Jordan, A. Talley)	United States	Fresno, Calif.	May 14, 1938
		Texas University (D. Smith, J. Prewitt, A. Frieden, C. Thomas)	United States	Los Angeles	May 22, 1954
880 yd. (4 x 220)	1 m. 24 s.	Univ. of So. California (M. Patton, R. Frazier, G. Pasquali, N. Stocks)	United States	Los Angeles	May 20, 1949
1 mi. (4 x 440)	3 m. 8.8 s.	National Team (E. Cole, J. W. Mashburn, R. Pearman, M. Whitfield)	United States	London	Aug. 9, 1952
2 mi. (4 x 880)	7 m. 27.3 s	Fordham University (T. Foley, F. Tarsney, W. Persichetty, T. Courtney)	United States	Los Angeles	May 21, 1954
4 mi. (4 x 1 mile)	16 m. 41 s.	National Team (C. Chataway, G. Nankeville, D. Seaman, R. Bannister)	Gt. Brit. & No. Ire.	London	Aug. 1, 1953

RELAY RACES—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
400 m. (4 x 100)	39.8 s.	U. S. A. National Team (Owens, Metcalfe, Draper, Wykoff)	United States	Berlin	Aug. 9, 1936
800 m. (4 x 200)	1 m. 24 s.	Univ. of So. California (M. Patton, R. Frazier, G. Pasquali, N. Stocks)	United States	Los Angeles	May 20, 1949
1,600 m. (4 x 400)	3 m. 3.9 s.	National Team (A. Wint, L. Laing, H. McKenley, G. Rhoden)	Jamaica, B.W.I.	Helsinki	July 27, 1952
3,200 m. (4 x 800)	7 m. 28 s.	Uda (D. Cikel, A. Strzinck, L. Leika, S. Jungwirth)	Czechoslovakia	Boleslav	July 29, 1953
6,000 m. (4 x 1500)	15 m. 21.2 s.	Budapesti H. S. E. (L. Tabori, I. Rozsavolgyi, F. Mikes, S. Iharos)	Hungary	Budapest	July 14, 1954

FIELD EVENTS

Event	Record	Holder	Home country	Where made	Date
High jump	6 ft. 11½ in. (2.12 m.)	Walter Davis	United States	Dayton, Ohio	June 27, 1953
Running broad jump	26 ft. 8¼ in. (8.13 m.)	Jesse Owens	United States	Ann Arbor	May 25, 1935
Rng. hop, step, jump	53 ft. 2¾ in. (16 m. 23 cm.)	L. Scherbakov	U.S.S.R.	Moscow	July 19, 1953
Pole vault	15 ft. 7¾ in. (4.77 m.)	C. Warmerdam	United States	Modesto, Calif.	May 23, 1942
16-lb. shot-put	60 ft. 10 in. (18.54 m.)	Parry O'Brien	United States	Los Angeles	June 11, 1954
Discus throw	194 ft. 6 in. (59.28 m.)	Fortune Gordien	United States	Pasadena, Calif.	Aug. 22, 1953
Javelin throw	263 ft. 10 in. (80.41 m.)	Franklin Held	United States	Pasadena, Calif.	Aug. 8, 1953
16-lb. hammer throw	207 ft. 9¾ in. (63.34 m.)	M. P. Krivonosov	U.S.S.R.	Berne	Aug. 29, 1954

DECATHLON

Points	Holder	Home country	Where made	Date
7,887	Robert Mathias	United States	Helsinki	July 25–26, 1952

WOMEN'S WORLD RECORDS

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.	10.4 s.	Marjorie Jackson	Australia	Sydney	Mar. 8, 1952
220 yds.	24 s.	M. Nelson Jackson	Australia	Vancouver	Aug. 5, 1954
880 yd.	2 m. 8.4 s.	N. Otkalenko	U.S.S.R.	Moscow	July 18, 1954
60 m.	7.3 s.	Stella Walasiewicz	Poland	Lemberg, Pol.	Sept. 24, 1933
100 m.	11.4 s.	Marjorie Jackson	Australia	Gifu, Japan	Oct. 4, 1953
200 m.	23.4 s.	Marjorie Jackson	Australia	Helsinki	July 25, 1952
800 m.	2 m. 6.6 s.	N. Otkalenko	U.S.S.R.	Kiev	Sept. 16, 1954

RELAY RACES

440 yd. (4 x 110)	46.3 s.	National Team (S. S. de la Hunty, V. Jonnson, W. Cripps, M. Jackson)	Australia	London	Aug. 4, 1952
400 m. (4 x 100)	45.6 s.	National Team (V. Kalashnikova, Z. Sofronova, N. Dvalijvili-Hnikina, I. Turova)	U.S.S.R.	Budapest	Sept. 20, 1953
880 yd. (4 x 220)	1 m. 39.9 s.	Great Britain and Northern Ireland (A. Pashley, J. Newboult, S. Hampton, A. Johnson)		London	Sept. 30, 1953
800 m. (4 x 200)	1 m. 36.4 s.	National Team (F. Catajnicova, V. Kazenteva, Z. Sofronova, N. Dvalijvili-Hnikina)	U.S.S.R.	Bucharest	Sept. 9, 1953
2,400 m. (3 x 800)	6 m. 33.2 s.	National Team (N. Chernoshchok, D. Barahovich, N. Otkalenko-Pletneva)	U.S.S.R.	Budapest	Sept. 19, 1953
1½ mi. (3 x 880)	6 m. 36.2 s.	Hungarian National Team (A. Bacskai, A. Oros, A. Kazi)		Tata	July 21, 1954

HURDLES

80 m.	10.9 s.	S. S. de la Hunty	Australia	Helsinki	July 27, 1952
		M. Golubnichaja	U.S.S.R.	Kiev	Aug. 3, 1954

FIELD EVENTS

Rng. high jump	5 ft. 8 in. (1 m. 73 cm.)	A. Chudina	U.S.S.R.	Kiev	May 22, 1954
Broad jump	20 ft. 7½ in. (6.28 m.)	Yvette Williams	New Zealand	Sydney	Feb. 20, 1954
Shot-put	53 ft. 4¾ in. (16.28 m.)	Galina Zybina	U.S.S.R.	Kiev	Sept. 14, 1954
Discus throw	187 ft. 1½ in. (57 m. 4 cm.)	Nina Dumbadze	U.S.S.R.	Tbilisi, U.S.S.R.	Oct. 18, 1952
Javelin throw	182 ft. (55.48 m.)	N. Konjaeva	U.S.S.R.	Kiev	Aug. 6, 1954

PENTATHLON

4,704 points	A. Chudina	U.S.S.R.	Bucharest	Aug. 8–9, 1954

INDOOR MILE WINNERS, 1955

Source: Stan Saplin, New York University.

Boston K. of C.—Gunnar Nielsen, Denmark	4:07.9
Philadelphia Inquirer—Wes Santee, Lawrence, Kan.	4:10.5
Washington Star—Gunnar Nielsen	4:09.5
Boston A. A. (Hunter)—Wes Santee	4:03.8
Millrose (Wanamaker)—Gunnar Nielsen	4:03.6
Metropolitan College—William St. Clair, Manhattan	4:23.3
New York A. C. (Baxter)—Fred Dwyer, U. S. Armed Forces	4:06.2
National A. A. U.—Wes Santee	4:07.9
National Interscholastic—Gerald Costello, Edison Vocational	4:29.2
Big Seven—Allen Frame, Kansas	4:26.7
I. C. 4-A—Alex Breckenridge, Villanova	4:19.9
Heptagonal—Arthur Wills, Harvard	4:25.0
Big Ten—John Moule, Michigan	4:21.3
New York K. of C.—Wes Santee	4:10.4
Pioneer Club (Pegler)—George King, N. Y. U.	4:16.6
Milwaukee Journal—Wes Santee	4:08.6
Cleveland K. of C.—Wes Santee	4:04.6
Chicago Relays (Bankers)—Wes Santee	4:04.2

BOSTON MARATHON, 1955

(Fifty-ninth running)

Leading Finishers

	h. m. s.
1—Hideo Hamamura, Japan	*2:18:22
2—Eino A. Pulkkinen, Finland	2:19:23
3—Nick Costes, Natick, Mass.	2:19:57
4—Paavo Kotila, Finland	2:20:16
5—Reinaldo Gorna, Argentina	2:20:28
6—Gustaf Jansson, Sweden	2:21:41
7—Yoshitaka Uchiwawa, Japan	2:22:40
8—Tadaaki Tanabe, Japan	2:26:08
9—Ezequiel Bustamente, Argentina	2:27:51
10—Rodolfo Mendez, Brooklyn	2:28:30
11—Ted Corbitt, Brooklyn	2:32:27
12—John DiComandrea, Watertown, Mass.	2:37:08
13—Aldo Scandurra, New York	2:37:30
14—Louis Tornes, Brooklyn	2:38:00
15—Norman Tamahana, Hawaii	2:38:30
16—Nathaniel Circuinick, Brooklyn	2:39:03
17—Rene Doiron, Gardner, Mass.	2:40:23

* Record for the 26-mile-385-yard race.

History of the Mile Run

Year	Athlete and country	Where made	Time
1865	Webster, England	England	4:44.5
1866	C. B. Lawes, England	England	4:39.0
1868	W. M. Chinnery, England	England	4:33.2
1871	W. M. Chinnery, England	England	4:31.8
1874	Walter Slade, England	England	4:24.5
1881	Walter George, England	England	4:19.8
1884	Walter George, England	England	4:18.4
1895	F. E. Bacon, England	England	4:17.0
1895	T. P. Conneff, United States	United States	4:15.6
1911	John Paul Jones, United States	United States	4:15.4
1913	John Paul Jones, United States	United States	4:14.4
1915	Norman Taber, United States	United States	4:12.6
1923	Paavo Nurmi, Finland	Sweden	4:10.4
1931	Jules Ladoumegue, France	France	4:09.2
1933	John Lovelock, New Zealand	United States	4:07.6
1934	Glenn Cunningham, United States	United States	4:06.8
1937	Sydney Wooderson, England	England	4:06.4
1942	Gunder Hagg, Sweden	Sweden	4:06.2
1942	Gunder Hagg, Sweden	Sweden	4:04.6
1943	Arne Andersson, Sweden	Sweden	4:02.6
1944	Arne Andersson, Sweden	Sweden	4:01.6
1945	Gunder Hagg, Sweden	Sweden	4:01.4
1954	Roger Bannister, England	England	3:59.4
1954	John Landy, Australia	Finland	3:58.0

TABLE TENNIS

United States Champions

MEN'S SINGLES

1931	Marcus Schussheim, New York
1932	Coleman Clark, Chicago*
	Marcus Schussheim, New York*
1933	James M. Jacobson, New Rochelle, N. Y.*
	Sidney Heitner, New York*
1934	James McClure, Indianapolis*
	Sol Schiff, New York*
1935	A. Berenbaum, New York
1936	Viktor Barna, Hungary†
	Sol Schiff, New York‡
1937	Laszlo Bellak, Hungary†
1938	Laszlo Bellak, Hungary
1939	James McClure, Indianapolis
1940	Louis Pagliaro, New York
1941	Louis Pagliaro, New York
1942	Louis Pagliaro, New York
1943	William Holzrichter, Chicago
1944	John Somael, New York
1945	Richard Miles, New York
1946	Richard Miles, New York
1947	Richard Miles, New York
1948	Richard Miles, New York
1949	Richard Miles, New York
1950	John Leach, England
1951	Richard Miles, New York
1952	Louis Pagliaro, New York
1953–54	Richard Miles, New York

MEN'S DOUBLES

1932	James M. Jacobson-George T. Bacon, Jr., New Rochelle.
1933	Paul Pearson-Edwin Lewis, Chicago*
	Ralph Langsam-Lloyd Waterson, New York*
1934	Samuel Silberman-Alan Lobell, New York*
	Sol Schiff, N. Y.-Manny Moskowitz, Rutherford, N. J.*
1935	A. Berenbaum, N. Y.-Edward Silverglade, Trenton, N. J.
1936	James McClure, Indianapolis-Robert Blattner, St. Louis†
	James M. Jacobson, New Rochelle, N. Y.-Sol Schiff, New York‡
1937	Laszlo Bellak, Hungary-Standa Kolar, Czechoslovakia†
1938	Sol Schiff, New York-James McClure, Indianapolis
1939	Laszlo Bellak-Tibor Hazi, Hungary
1940	Sol Schiff, New York-James McClure, Indianapolis
1941	Edward Pinner-Cy Sussman, New York
1942	Edward Pinner-Cy Sussman, New York
1943	Laszlo Bellak, New York- Tibor Hazi, Philadelphia
1944	William Holzrichter, Chicago-Laszlo Bellak, N. Y.
1945	John Somael, New York-Max Hersh, Detroit
1946	Edward Pinner-Cy Sussman, New York
1947	Douglas Cartland-Arnold Fetbrod, New York
1948	Tibor Hazi, Washington-John Somael, New York
1949	Martin Reisman-Sol Schiff, New York
1950	John Leach-Jack Carrington, England
1951	M. Reisman, N. Y.-W. Holzrichter, Chicago
1952	Richard Miles-Sol Schiff, New York
1953	Richard Miles-John Somael, New York
1954	Bernard Bukiet, Chicago-Tibor Hazi, Washington

WOMEN'S SINGLES

1933	Jessie Purves and Mrs. Fan Pockrose*
1934	Ruth Hughes Aarons and Iris Little*
1935	Ruth Hughes Aarons
1936	Ruth Hughes Aarons†
1937	Ruth Hughes Aarons‡
1938	Emily Fuller
1939	Emily Fuller
1940	Sally Green
1941	Sally Green
1942	Sally Green
1943	Sally Green
1944	Sally Green
1945	Davida Hawthorn
1946	Bernice Charney
1947	Leah Thall
1948	Peggy McLean
1949	Mrs. Leah Thall Neuberger
1950	Mrs. Reba K. Monness
1951	Mrs. Leah Thall Neuberger
1952	Mrs. Leah Thall Neuberger
1953	Mrs. Leah Thall Neuberger
1954	Mildred Shaihan

* Co-champions. At the time there were two national associations, each with its own champion. † Open championships. ‡ Closed championships.

SWIMMING

THERE IS THE ancient tale of Leander of Abydos swimming the Hellespont nightly to call on Helen of Sestos but nobody kept the time on his trips. However, Lord Byron swam one leg of the old Leander course, Sestos to Abydos, on May 3, 1810, in 1 hour 10 minutes. The famous British poet was a noted swimmer and once, in an endurance trial at Venice, was in the water for 4 hours 10 minutes. Distance swimming was the early type of competition. Captain Matthew Webb achieved fame by being the first to swim the English Channel—Dover to Calais—in August, 1875, in 21 hours 45 minutes. Many other swimmers, men and women, have conquered the Channel since that time. Gertrude Ederle, of New York City, was the first woman to accomplish the feat. Miss Ederle swam the Channel Aug. 6, 1926, in 14 hours 34 minutes, breaking the existing record at that time. Since then the record has been lowered by a number of men and women.

Regular competition at short as well as long distances and indoor as well as outdoor came with the development of such organizations as the Amateur Athletic Union and the building of indoor and outdoor swimming pools. Swimming has been on the Olympic program since the start of the modern Olympic Games at Athens in 1896.

WORLD RECORDS

Source: Official Amateur Athletic Union Swimming Rules and Records Book. Reprinted by courtesy of the publishers, the Amateur Athletic Union of the United States, 233 Broadway, New York, N. Y., and R. M. Ritter, Vice-President, International Amateur Swimming Federation.

Accepted by the International Amateur Swimming Federation as of Sept. 8, 1955.

MEN

FREE STYLE

Distance	Time	Course	Holder	Home country	Where made	Date
100 yd.	49.2 s.	25 yd.	Richard Cleveland	U. S.	Columbus, Ohio	Feb. 23, 1952
100 m.	54.8 s.	25 m.	Richard Cleveland	U. S.	New Haven	Apr. 1, 1954
200 m.	2 m. 3.4 s.	25 yd.	J. C. Wardrop	Gt. Britain	Columbus	Mar. 4, 1955
220 yd.	2 m. 3.4 s.	25 yd.	J. C. Wardrop	Gt. Britain	Columbus	Mar. 4, 1955
400 m.	4 m. 26.7 s.	25 yd.	Ford H. Konno	U. S.	New Haven	Apr. 3, 1954
440 yd.	4 m. 28.1 s.	25 yd.	J. B. Marshall	Australia	New Haven	Mar. 24, 1951
500 yd.	5 m. 12 s.	25 yd.	J. B. Marshall	Australia	New Haven	June 30, 1950
500 m.	5 m. 43.7 s.	25 yd.	J. B. Marshall	Australia	New Haven	Feb. 17, 1951
800 m.	9 m. 30.7 s.	100 m.	Ford H. Konno	U. S.	Honolulu	July 7, 1951
880 yd.	9 m. 37.5 s.	55 yd.	J. B. Marshall	Australia	Seattle	July 23, 1950
1,500 m.	18 m. 19 s.	50 m.	H. Furuhashi	Japan	Los Angeles	Aug. 16, 1949
1 mi.	19 m. 49.4 s.	55 yd.	J. B. Marshall	Australia	New Haven	July 7, 1950

Relays

400 yd.	3 m. 21.3 s.	25 yd.	Yale University (K. Donovan, H. Gideonse, D. Armstrong, J. Niles)	U. S.	New Haven	Feb 12, 1955
400 m.	3 m. 46.8 s.	50 m.	National Team (H. Suzuki, A. Tani, T. Goto, M. Koga)	Japan	Tokyo	Aug. 6, 1955
800 yd.	7 m. 39.9 s.	25 yd.	Yale University (W. Moore, J. McLane, M. Smith, D. Sheff)	U. S.	New Haven	Feb. 14, 1953
800 m.	8 m. 29.4 s.	25 m.	Yale University (W. Moore, J. McLane, D. Sheff, R. Thoman)	U. S.	New Haven	Feb. 16, 1952

BREAST STROKE (Orthodox Style)

100 yd.	1 m. 4.3 s.	25 m.	L. Brock	Sweden	Lund	May 29, 1953
100 m.	1 m. 9.8 s.	25 m.	M. Petrusevicz	Poland	Wroclaw	May 23, 1954
200 m.	2 m. 33.7 s.	25 m.	M. Furukawa	Japan	Tokyo	Aug. 5, 1955
220 yd.	2 m. 38 s.	25 yd.	Robert Gawboy, Jr.	U. S.	New Haven	Apr. 1, 1955

BACKSTROKE

100 yd.	55.7 s.	25 yd.	Yoshinobu Oyakawa	U. S.	Columbus	Feb. 27, 1954
100 m.	1 m. 2.1 s.	25 m.	G. Bozon	France	Troyes	Feb. 27, 1955
200 m.	2 m. 18.3 s.	25 m.	G. Bozon	France	Algiers	June 26, 1953

BUTTERFLY

100 yd.	54.7 s.	25 yd.	Albert Wiggins	U. S.	Columbus	Jan. 22, 1955
100 m.	1 m. 1.5 s.	25 m.	Albert Wiggins	U. S.	New Haven	Apr. 2, 1955
200 m.	2 m. 21.6 s.	25 m.	J. Nagasawa	Japan	Tokyo	Sept. 17, 1954
220 yd.	2 m. 26.1 s.	25 yd.	Philip Drake	U. S.	Chapel Hill	July 20, 1955

INDIVIDUAL MEDLEY

400 yd.	4 m. 36.9 s.	25 yd.	J. C. Wardrop	Gt. Britain	New Haven	Apr. 1, 1955
400 m.	5 m. 15.4 s.	25 m.	V. Stroujanov	U.S.S.R.	Minsk	Oct. 2, 1954

MEDLEY RELAYS

(Back, breast, free style, butterfly)

400 yd.	3 m. 48 s.	25 yd.	Ohio State Univ. (Y. Oyakawa, A. Wiggins, B. Ledger, R. Cleveland)	U. S.	Columbus	Jan.	22, 1955
400 m.	4 m. 15.7 s.	50 m.	National Team (K. Hase, M. Furukawa, T. Ishimoto, M. Kogo)	Japan	Osaka	Aug.	13, 1955

WOMEN

FREE STYLE

Distance	Time	Course	Holder	Home country	Where made	Date
100 yd.	58.1 s.	25 yd.	Jody Alderson	U. S.	Chicago	July 30, 1955
100 m.	1 m. 4.6 s.	25 m.	W. DenOuden	Netherlands	Amsterdam	Feb. 27, 1936
200 m.	2 m. 21.7 s.	25 m.*	R. Hveger	Denmark	Aarhus	Sept. 11, 1938
220 yd.	2 m. 22.6 s.	25 yd.*	R. Hveger	Denmark	Copenhagen	Apr. 23, 1939
400 m.	5 m. 0.1 s.	25 m.	R. Hveger	Denmark	Copenhagen	Sept. 15, 1940
440 yd.	5 m. 7.9 s.	25 yd.	Ann Curtis	U. S.	Seattle, Wash.	May 2, 1947
800 m.	10 m. 42.4 s.	50 m.	V. Gyenge	Hungary	Budapest	June 28, 1953
880 yd.	11 m. 0.2 s.	55 yd.	L. Crapp	Australia	Townsville, Aust.	June 25, 1954
1,500 m.	20 m. 46.5 s.	50 m.	L. de Nijs	Holland	Utrecht	July 23, 1955
1 mi.	22 m. 5.5 s.	50 m.	L. de Nijs	Holland	Utrecht	Aug. 12, 1955

* Salt water.

Relays

400-yd.	3 m. 59.2 s.	25 yd.	Walter Reed S. C. (K. Knapp, S. Mann, W. Werner, M. Gillett)	U. S.	Daytona Beach	Apr.	16, 1954
400 m.	4 m. 24.4 s.	50 m.	National Team (I. Novak, J. Temes, E. Novak, E. Szekely)	Hungary	Helsinki	Aug.	1, 1952

BACKSTROKE

100 yd.	1 m. 4.6 s.	25 m.	G. Wielema	Netherlands	Hilversum	Mar.	13, 1950
100 m.	1 m. 10.9 s.	25 m.	Cor Kint	Netherlands	Rotterdam	Sept.	22, 1939
200 m.	2 m. 35.3 s.	25 m.	G. Wielema	Netherlands	Hilversum	Apr.	2, 1950

BUTTERFLY

100 yd.	1 m. 6.1 s.	25 m.	M. Kok	Holland	Hilversum	Apr.	3, 1955
100 m.	1 m. 13.7 s.	25 m.	A. Voorbij	Holland	Naarden	July	14, 1955

INDIVIDUAL MEDLEY

400 m.	5 m. 40.8 s.	25 m.	E. Szekely	Hungary	Budapest	July	13, 1955

MEDLEY RELAYS

(Back, breast, free style, butterfly)

400 yd.	4 m. 33.5 s.	25 yd.	Walter Reed S.C. (S. Mann, M. Sears, B. Mullen, W. Werner)	U. S.	Daytona Beach	Apr.	9, 1955
400 m.	5 m. 0.1 s.	50 m.	National Team (J. van Alphen, H. Bruins, A. Voorbij, H. Balkenende)	Holland	Paris	July	17, 1955

WEIGHT LIFTING

World Records

BANTAMWEIGHT (123 POUNDS)

Press—Joseph DePietro, U. S.	231
Snatch—Charles Vinci, Jr., U. S.	223
Clean & jerk—Yu In Ho, South Korea	285
Total—Namdjou, Iran	699

FEATHERWEIGHT (132 POUNDS)

Press—Del Rosario, Philippines	239¼
Snatch—Chimishkyan, Russia	240¼
Clean & jerk—Chimishkyan	315¼
Total—Chimishkyan	771

LIGHTWEIGHT (148 POUNDS)

Press—Nikitin, Russia	264½
Snatch—Kostylev, Russia	271½
Clean & jerk—Shams, Egypt	338¾
Total—Kostylev	837

MIDDLEWEIGHT (165 POUNDS)

Press—Tommy Kono, U. S.	292½
Snatch—Duganov, Russia	292½
Clean & jerk—Tommy Kono	371¼
Total—Tommy Kono	931¼

LIGHT HEAVYWEIGHT (181 POUNDS)

Press—Tommy Kono, U. S.	316½
Snatch—Dave Sheppard, U. S.	303¼
Clean & jerk—Lomakin, Russia	381¼
Total—Tommy Kono	964½

MIDDLE HEAVYWEIGHT (198 POUNDS)

Press—Osipa, Russia	317½
Snatch—Dave Sheppard, U. S.	316½
Clean & jerk—Norbert Schemansky, U. S.	399
Total—Vorobyev, Russia	1014¼

HEAVYWEIGHT

Press—Paul Anderson, U. S.	403½
Snatch—Norbert Schemansky, U. S.	334
Clean & jerk—Paul Anderson	436¼
Total—Paul Anderson	1145

NOTE—All records established in official competition, but some are subject to final approval of International Weight Lifting Federation.

Egyptian Takes Swim Marathon

Hamed Mustafa of Egypt won the 2-day international swimming marathon along the Nile in 1955. He captured both stages of the 42-mile contest, covering the 26 miles on the first day in 8 hours 15 minutes. He was clocked in 7 hours 57 minutes for the second stage. Helga Weiss of West Berlin won the women's competition, which was shortened to 22 miles. Her total time was 13 hours 45 minutes. The women swam 16 miles the first day.

POLO

Polo originated "somewhere east of Suez" but exactly where never has been determined. There is pictorial proof that it was played many centuries ago in Persia, Japan, China and Tibet, but it reached England by way of a border tribe in India known as the Manipuri. British army officers in India, about 1860, found the Manipuri playing polo and learned the game from them. The fact that the Manipuri used small native horses—they had no others—was the reason for the early height limit (14 hands) on polo mounts, from which arose the custom of calling them "polo ponies," which was abandoned in 1919.

In 1869 some officers of the 10th Hussars, returning from India, introduced the game in England and informal games were played with as many as eight players on a side. Formal competition at Hurlingham, the great shrine of the game, began in 1876 with five players on a side, which number was cut to four in 1882. In 1884 an outstanding English player by the name of John Watson invented the backhand stroke and much improved the tactics of the game.

James Gordon Bennett, Jr., noted American newspaper owner and editor, saw polo at Hurlingham in 1875, brought the implements to this country, had a carload of cow ponies sent up from Texas and promoted a game that was played indoors at the Dickel Riding Academy at Fifth Avenue and 39th Street, New York City, in 1876. Polo moved outdoors to the Jerome Park race course and other suitable places soon after. One field on which it was played, at Fifth Avenue and 110th Street, was taken over by the New York baseball team in the National League and that is why the field on which the "Giants" play ball, although there since have been two changes in site, still is called "the Polo Grounds."

Polo Statistics

Source: United States Polo Association.

INTERNATIONAL MATCHES

Great Britain vs. United States

1886 Won by Great Britain (10–4, 14–2) at Newport, R. I. **Great Britain:** No. 1, Capt. T. Hone; No. 2, Hon. R. Lawley; No. 3, Capt. Malcolm Little; Back, John Watson. **United States:** No. 1, Winthrop K. Thorne; No. 2, R. Belmont; No. 3, Foxhall P. Keene; Back, Thomas Hitchcock.

1902 Won by Great Britain (1–2, 6–1, 7–1) at Hurlingham. **Great Britain:** No. 1, Cecil P. Nickalls; No. 2, P. W. Nickalls and F. M. Freake; No. 3, Walter Buckmaster and George A. Miller; Back, Charles D. Miller and Walter Buckmaster. **United States:** No. 1, R. L. Agassiz and J. M. Waterbury, Jr.; No. 2, J. E. Cowdin and Lawrence Waterbury; No. 3, Foxhall P. Keene; Back, Lawrence Waterbury and R. L. Agassiz.

1909 Won by United States (9–5, 8–2) at Hurlingham. **United States:** No. 1, Lawrence Waterbury; No. 2, J. M. Waterbury, Jr.; No. 3, Harry Payne Whitney; Back, Devereux Milburn. **Great Britain:** No. 1, Capt. Herbert H. Wilson and Harry Rich; No. 2, F. M. Freake; No. 3, P. W. Nickalls; Back, Lord Wodehouse and Capt. J. Hardress Lloyd.

1911 Won by United States (4½–3, 4½–3½) at Meadow Brook. **United States:** No. 1, Lawrence Waterbury; No. 2, J. M. Waterbury, Jr.; No. 3, Harry Payne Whitney; Back, Devereux Milburn. **Great Britain:** No. 1, Capt. Leslie St. G. Cheape; No. 2, A. Noel Edwards; No. 3, Capt. J. Hardress Lloyd; Back, Capt. Herbert H. Wilson.

1913 Won by United States (5½–3, 4½–4¼) at Meadow Brook. **United States:** No. 1, Lawrence Waterbury and Louis E. Stoddard; No. 2, J. M. Waterbury, Jr., and Lawrence Waterbury; No. 3, Harry Payne Whitney; Back, Devereux Milburn. **Great Britain:** No. 1, Capt. Leslie St. G. Cheape; No. 2, A. Noel Edwards and F. M. Freake; No. 3, Capt. R. G. Ritson; Back, Capt. Vivian N. Lockett.

1914 Won by Great Britain (8½–3, 4–2¾) at Meadow Brook. **Great Britain:** No. 1, Capt. H. A. Tomkinson; No. 2, Capt. Leslie St. G. Cheape; No. 3, Maj. F. W. Barrett; Back, Capt. Vivian N. Lockett. **United States:** No. 1, Rene LaMontagne; No. 2, J. M. Waterbury, Jr.; No. 3, Devereux

Milburn and Lawrence Waterbury; Back, Lawrence Waterbury and Devereux Milburn.

1921 Won by United States (11–4, 10–6) at Hurlingham. United States: No. 1, Louis E. Stoddard; No. 2, Thomas Hitchcock, Jr.; No. 3, J. Watson Webb; Back, Devereux Milburn. Great Britain: No. 1, Lt. Col. H. A. Tomkinson; No. 2, Maj. F. W. Barrett; No. 3, Lord Wodehouse; Back, Maj. Vivian N. Lockett.

1924 Won by United States (16–5, 14–5) at Meadow Brook. United States: No. 1, J. Watson Webb; No. 2, Thomas Hitchcock, Jr.; No. 3, Malcolm Stevenson and Robert E. Strawbridge Jr.; Back, Devereux Milburn. Great Britain: No. 1, Maj. T. W. Kirkwood and Lt. Col. T. P. Melvill; No. 2, Maj. F. W. Hurndall and Maj. G. H. Phipps-Hornby; No. 3, Maj. E. G. Atkinson; Back, Lewis L. Lacey.

1927 Won by United States (13–3, 8–5) at Meadow Brook. United States: No. 1, J. Watson Webb; No. 2, Thomas Hitchcock, Jr.; No. 3, Malcolm Stevenson; Back, Devereux Milburn. Great Britain: No. 1, Capt. Claude E. Pert and Capt. R. George; No. 2, Maj. Austin H. Williams and Capt. J. P. Dening; No. 3, Capt. C. T. I. Roark; Back, Maj. E. G. Atkinson.

1930 Won by United States (10–5, 14–9) at Meadow Brook. United States: No. 1, Eric Pedley; No. 2, Earle A. S. Hopping; No. 3, Thomas Hitchcock, Jr.; Back, Winston F. C. Guest. Great Britain: No. 1, Gerald Balding; No. 2, Lewis L. Lacey; No. 3, Capt. C. T. I. Roark; Back, Humphrey P. Guinness.

1936 Won by United States (10–9, 8–6) at Hurlingham. United States: No. 1, Eric Pedley; No. 2, Michael G. Phipps; No. 3, Stewart B. Iglehart; Back, Winston F. C. Guest. Great Britain: No. 1, Hesketh H. Hughes; No. 2, Gerald Balding; No. 3, Eric H. Tyrrell-Martin; Back, Humphrey P. Guinness.

1939 Won by United States (11–7, 9–4) at Meadow Brook. United States: No. 1, Michael G. Phipps; No. 2, Thomas Hitchcock, Jr.; No. 3, Stewart B. Iglehart; Back, Winston F. C. Guest. Great Britain: No. 1, Robert Skene; No. 2, Aidan Roark; No. 3, Gerald Balding; Back, Eric H. Tyrrell-Martin.

Argentina vs. United States

1928 Won by United States (7–6, 7–10, 13–7) at Meadow Brook. United States: No. 1, W. A. Harriman; No. 2, Thomas Hitchcock, Jr.; and E. A. S. Hopping; No. 3, Malcolm Stevenson and Thomas Hitchcock, Jr.; Back, Winston F. C. Guest. Argentina: No. 1, Arturo Kenny; No. 2, J. D. Nelson; No. 3, J. B. Miles; Back, Lewis L. Lacey.

1932 Won by United States (9–6, 7–8, 12–10) at Buenos Aires. United States: No. 1, Michael G. Phipps; No. 2, Elmer J. Boeseke, Jr.; No. 3, Winston F. C. Guest; Back, William Post, 2d. Argentina: No. 1, Arturo Kenny; No. 2, J. D. Nelson and Martin Reynal; No. 3, José Reynal; Back, Manuel Andrada.

1936 Won by Argentina (21–9, 8–4) at Meadow Brook. Argentina: No. 1, Luis Duggan; No. 2, Roberto Cavanagh; No. 3, Andres Gazzotti; Back, Manuel Andrada. United States: No. 1, G. H. Bostwick; No. 2, Gerald Balding; No. 3, Thomas Hitchcock, Jr.; Back, John Hay Whitney.

1950 Won by Argentina (14–10, 11–7) at Buenos Aires. Argentina: No. 1, Juan Cavanagh; No. 2, Roberto Cavanagh; No. 3, Enrique Alberdi; Back, Juan Carlos Alberdi. United States: No. 1, Delmar Carroll; No. 2, Peter Perkins; No. 3, George K. Oliver; Back, Lewis Smith.

WOMEN'S LACROSSE

1955 All-America Selections

FIRST TEAM—First home, Margot Cunningham; second home, Mrs. Alice Willetts; third home, Judy Devlin; right attack wing, Betty King; left attack wing, Elizabeth Swett; center, Lee Chadbourne; right defense wing, Ann Capolino; left defense wing, Eugenia Slaymaker; third man, Jane Oswald; cover point, Mary Fetter; point, Gayle Meacham; goal, Roberta Brennan.
RESERVES—First home, Kate Barrett; second home, Betty Richey; third home, Mildred Barnes; right attack wing, Betty Shellenberger; left attack wing, Sue Gordy; center, Janet Waldie; right defense wing, Christine Fazzi; left defense wing, June Biedler; third man, Barbara Hall; cover point, Barbara Hall; point, Catherine Christie; goal, Jane Vache.

Disaster Marks Auto Race

Although more than 80 persons were killed in an accident that marred the running of the 1955 twenty-four-hour endurance race at Le Mans, France, the event was completed and was won by Mike Hawthorn and Ivor Bueb of England in a Jaguar with a record average of 172.038 kilometers (about 107.067 miles) per hour. The accident occurred when Pierre Levegh, in a Mercedes Benz, hit Lance Macklin'S Austin Healey. Levegh's car swerved into the grandstand, exploded and spread death in a crowd packed 80 deep.

NATIONAL OPEN POLO CHAMPIONS

Not held from 1905 to 1909, inclusive; 1911, 1916, 1917, 1918, and from 1942 to 1945, inclusive.

1904—WANDERERS
1—C. R. Snowden
2—J. E. Cowdin
3—J. M. Waterbury, Jr.
Back—L. Waterbury

1910—RANELAGH
1—R. N Grenfell
2—F. Grenfell
3—Earl of Rocksavage
Back—F. A. Gill

1912—COOPERSTOWN
1—F. S. von Stade
2—C. C. Rumsey
3—C. P. Beadleston
Back—M. Stevenson

1913—COOPERSTOWN
1—F. S. von Stade
2—C. C. Rumsey
3—C. P. Beadleston
Back—M. Stevenson

1914—MEADOW BROOK MAGPIES
1—N. L. Tilney
2—J. W. Webb
3—W. G. Loew
Back—H. Phipps

1916—MEADOW BROOK
1—H. Phipps
2—C. C. Rumsey
3—W. G. Loew
Back—D. Milburn

1919—MEADOW BROOK
1—F. H. Prince, Jr.
2—J. W. Webb
3—F. S. von Stade
Back—D. Milburn

1920—MEADOW BROOK
1—F. S. von Stade
2—J. W. Webb
3—R. E. Strawbridge, Jr.
Back—D. Milburn

1921—GREAT NECK
1—L. E. Stoddard
2—R. Wanamaker, II
3—J. W. Webb
Back—R. E. Strawbridge, Jr.

1922—ARGENTINE
1—J. B. Miles
2—J. D. Nelson
3—D. B. Miles
Back—L. L. Lacey

1923—MEADOW BROOK
1—R. Belmont
2—T. Hitchcock, Jr.
3—R. E. Strawbridge, Jr.
Back—D. Milburn

1924—MIDWICK
1—E. G. Miller
2—E. L. Pedley
3—A. P. Perkins
Back—C. F. Burke

1925—ORANGE COUNTY
1—W. A. Harriman
2—J. W. Webb
3—M. Stevenson
Back—J. C. Cowdin

1926—HURRICANES
1—S. Sanford
2—E. L. Pedley
3—Capt. C. T. I. Roark
Back—R. E. Strawbridge, Jr.

1927—SANDS POINT
1—W. A. Harriman
2—T. Hitchcock, Jr.
3—J. C. Cowdin
Back—L. E. Stoddard

1928—MEADOW BROOK
1—C. V. Whitney
2—W. F. C. Guest
3—J. B. Miles
Back—M. Stevenson

1929—HURRICANES
1—S. Sanford
2—Capt. C. T. I. Roark
3—J. W. Webb
Back—R. E. Strawbridge, Jr.

1930—HURRICANES
1—S. Sanford
2—E. L. Pedley
3—Capt. C. T. I. Roark
Back—R. E. Strawbridge, Jr.

1931—SANTA PAULA
1—A. Gazzotti
2—José Reynal
3—Juan Reynal
Back—M. Andrada

1932—TEMPLETON
1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1933—AURORA
1—S. H. Knox
2—J. P. Mills
3—E. T. Gerry
Back—E. J. Boeseke, Jr.

1934—TEMPLETON
1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1935—GREENTREE
1—G. H. Bostwick
2—T. Hitchcock, Jr.
3—G. Balding
Back—J. H. Whitney

1936—GREENTREE
1—G. H. Bostwick
2—G. Balding
3—T. Hitchcock, Jr.
Back—J. H. Whitney

1937—OLD WESTBURY
1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C. V. Whitney

1938—OLD WESTBURY
1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C V. Whitney

1939—BOSTWICK FIELD
1—G. H. Bostwick
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—E. H. Tyrrell-Martin

1940—AKNUSTI
1—G. S. Smith
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—A. L. Corey, Jr.

1941—GULF STREAM
1—J. H. A. Phipps
2—M. G. Phipps
3—C. S. von Stade
Back—A. L. Corey, Jr.

1946—HERRADURA
1—Gabriel Gracida
2—Guillermo Gracida
3—Alejandro Gracida
Back—José Gracida

1947—OLD WESTBURY
1—P. Silvero
2—C. C. Combs
3—S. B. Iglehart
Back—G. Oliver

1948—HURRICANES
1—L. Sheerin
2—P. Perkins
3—C. Smith
Back—S. Sanford

1949—HURRICANES
1—L. Sheerin
2—R Cavanaugh
3—C. Smith
Back—S. Sanford

1950—BOSTWICK FIELD
1—G. H. Bostwick
2—George Oliver
3—A. L. Corey, Jr.
Back—D. Milburn, Jr.

1951—MILWAUKEE
1—Pedro Silvero
2—Peter Perkins
3—George Oliver
Back—Bob Uihlein

1952—BEVERLY HILLS
1—Bob Fletcher
2—Tony Veen
3—Bob Skene
Back—Carlton Beal

1953—MEADOW BROOK
1—Henry Lewis, III
2—Philip Iglehart
3—A. L. Corey, Jr.
Back—G. H. Bostwick

1954—M. BROOK—C. C. C.
1—A. D. Beveridge
2—Paul Barry
3—A. L. Corey, Jr.
Back—G. H. Bostwick

Gallorette Greatest Race Mare

In 1955 the Delaware Steeplechase and Race Association conducted a poll among the members of the American Trainers Association to determine the greatest race mare since the Civil War. The winner was Gallorette, with 548 points. Gallorette, who was foaled in 1942, was named on 83 of the 90 ballots, and 16 horsemen gave her the top spot. Twilight Tear was the runner-up, Regret third, Top Flight fourth and Miss Woodford, who received 18 first-place votes, fifth. Busher, Beldame, Princess Doreen, Bewitch and Imp, in order, rounded out the top ten.

HORSE RACING

ANCIENT DRAWINGS on stone and bone prove that horse racing is at least 3000 years old, but Thoroughbred Racing is a modern development. Practically every thoroughbred in training today traces its registered ancestry back to one or more of three sires that arrived in England about 1728 from the Near East and became known, from the names of their owners, as the Byerly Turk, the Darley Arabian and the Godolphin Arabian. The Jockey Club (English) was founded at Newmarket in 1750 or 1751 and became the custodian of the Stud Book as well as the court of last resort in deciding turf affairs.

There was horse racing in this country before the Revolution, but the great lift to the breeding industry came with the importation in 1798, by Col. John Hoomes of Virginia, of Diomed, winner of the Epsom Derby of 1780. Diomed's lineal descendants included such famous stars of the American turf as American Eclipse and Lexington. From 1800 to the time of the Civil War there were race courses and breeding establishments plentifully scattered through Virginia, North Carolina, South Carolina, Tennessee, Kentucky and Louisiana. In fact, thoroughbred racing was largely a Southern sport and that was one reason why the Confederacy had such excellent cavalry in the Civil War. A century ago crack horses were matched in four-mile races that were run in heats, best two out of three!

The oldest stake event in North America is the Queen's Plate, a Canadian fixture that was first run in the Province of Quebec in 1836. The oldest stake event in the United States is The Travers, which was first run at Saratoga in 1864. The gambling that goes with horse racing and trickery by jockeys, trainers, owners and track officials caused attacks on the sport by reformers and a demand among horse racing enthusiasts for an honest and effective control of some kind, but nothing of lasting value to racing came of this until the formation of The Jockey Club in 1894. The Jockey Club, composed of about sixty members chosen from the aristocracy of the turf, was all-powerful in racing regulation until the State Racing Commissions came into being as a result of mutuel betting and the great revenues that came with the tax on the "daily handle."

Horse Racing Statistics

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HISTORY OF TRADITIONAL STAKES

AMERICAN DERBY

Washington Park; 3-year-olds; 1½ miles.

Run at old Washington Park, Chicago, through 1904; run at Hawthorne in 1916; run at Arlington Park in 1928. Distance 1½ miles until 1928; 1¼ miles until 1952.

Year	Winner	Jockey	Wt.	Win val.
1884	Modesty	I. Murphy	117	$10,700
1885	Volante	I. Murphy	123	9,570
1886	Silver Cloud	I. Murphy	121	8,160
1887	C. H. Todd	Hamilton	118	13,690
1888	Emperor of Norfolk	I. Murphy	123	14,340
1889	Spokane	T. Kiley	121	15,400
1890	Uncle Bob	T. Kiley	115½	15,260
1891	Strathmeath	Covington	112	18,610
1892	Carlsbad	R. Williams	122	16,930
1893	Boundless	E. Garrison	122	49,500
1894	Rey el S'ta A'ta	E. Van Kuren	122	19,750
1898	Pink Coat	W. Martin	127	9,225
1900	Sidney Lucas	J. Bullman	122	9,425
1901	Robert Waddell	J. Bullman	119	19,275
1902	Wyeth	L. Lyne	122	19,875
1903	The Picket	Helgesen	115	27,025
1904	Highball	G. C. Fuller	122	26,325
1916	Dodge	F. Murphy	126	6,850
1926	Boot to Boot	A. Johnson	121	89,000
1927	Hydromel	L. McDermott	116	22,750
1928	Toro	E. Ambrose	126	21,920
1929	Windy City	L. McDermott	118	47,550
1930	Reveille Boy	W. Fronk	118	$51,200
1931	Mate	G. Ellis	126	48,670
1932	Gusto	S. Coucci	118	48,205
1933	Mr. Khayyam	P. Walls	121	23,410
1934	Cavalcade	M. Garner	126	23,315
1935	Black Helen	D. Meade	118	25,020
1937	Dawn Play	L. Balaski	116	25,400
1940	Mioland	J. Adams	123	44,900
1941	Whirlaway	A. Robertson	126	44,970
1942	Alsab	G. Woolf	126	60,855
1943	Askmenow	G. Woolf	115	56,150
1944	By Jimminy	G. Woolf	122	61,650
1945	Fighting Step	G. South	118	68,950
1946	Eternal Reward	R. Campbell	118	83,455
1947	Fervent	D. Dodson	118	70,950
1948	Citation	E. Arcaro	126	66,450
1949	Ponder	S. Brooks	126	66,150
1950	Hill Prince	E. Arcaro	126	60,050
1951	Hail of Fame	T. Atkinson	122	61,200
1952	Mark-Ye-Well	E. Arcaro	120	103,325
1953	Native Dancer	E. Arcaro	128	66,500
1954	Errard King	S. Boulmetis	124	68,900

ARLINGTON CLASSIC

Arlington Park; 3-year-olds; 1 mile.

Distance 1¼ miles from 1929 to 1951, inclusive. Run at Washington Park in 1943, 1944 and 1945.

Year	Winner	Jockey	Wt.	Win val.
1929	Blue Larkspur	M. Garner	126	$59,900
1930	Gallant Fox	E. Sande	126	64,750
1931	Mate	A. Robertson	126	73,650
1932	Gusto	S. Coucci	126	76,600
1933	Inlander	R. Jones	118	32,755
1934	Cavalcade	M. Garner	126	30,325
1935	Omaha	W. D. Wright	126	28,975
1936	Granville	J. Stout	126	28,400
1937	Flying Scot	J. Gilbert	123	27,375
1938	Nedayr	W. D. Wright	121	27,500
1939	Challedon	H. Richards	126	35,600
1940	Sirocco	G. Woolf	121	37,935
1941	Attention	C. Bierman	121	42,450
1942	Shut Out	E. Arcaro	126	$69,700
1943	Slide Rule	F. Zufelt	120	53,450
1944	Twilight Tear	L. Haas	114	62,050
1945	Pot o' Luck	D. Dodson	119	67,150
1946	The Dude	M. Duhon	119	76,850
1947	But Why Not	W. Mehrtens	117	71,500
1948	Papa Redbird	R. L. Baird	122	66,600
1949	Ponder	S. Brooks	126	65,450
1950	Greek Song	O. Scurlock	120	58,950
1951	Hall of Fame	T. Atkinson	120	62,975
1952	Mark-Ye-Well	E. Arcaro	112	105,375
1953	Native Dancer	E. Guerin	126	97,725
1954	Errard King	S. Boulmetis	120	104,475

ARLINGTON FUTURITY

Arlington Park; 2-year-olds; ¼ mile.

American National Futurity in 1927 and 1928. Run at Washington Park from 1943 to 1945, inclusive.

1927	Misstep	E. Pool	122	$ 9,360
1928	Double Heart	L. Geving	115	21,920
1932	Ladysman	R. Jones	117	38,010
1933	Far Star	D. Bellizzi	116	31,020
1934	Toro Nancy	R. Jones	112	41,725
1935	Grand Slam	J. Bryson	122	45,135
1936	Case Ace	A. Robertson	117	36,540
1937*	Tiger	A. Robertson	122	.....
	Teddy's Comet	G. Smith	117	18,000
1938	Thingumabob	E. Arcaro	117	31,110
1939	Andy K	J. E. Oros	114	33,735
1940	Swain	J. Adams	117	34,470
1941	Sun Again	W. Eads	122	34,655
1942	Occupation	L. Balaski	117	51,500
1943	Jezrahel	O. Grohs	116	$48,650
1944	Free for All	O. Grohs	122	48,525
1945	Spy Song	S. Brooks	122	58,650
1946	Cosmic Bomb	S. Clark	122	66,875
1947	Piet	Dell Jessop	122	66,900
1948	Mr. Busher	F. Zufelt	122	62,725
1949	Wisconsin Boy	J. Chestnut	122	60,075
1950	To Market	A. Rivera	122	56,215
1951	Hill Gail	S. Brooks	122	64,140
1952	Mr. Good	D. Dodson	122	81,575
1953	Hasty Road	E. Arcaro	122	101,475
1954	Royal Note	E. Arcaro	122	93,345

* Dead heat.

BELMONT FUTURITY

Belmont Park; 2-year-olds; 6½ furlongs

Distance 1,263 yards 1 foot from 1892 to 1901, inclusive. Distance 3/4 mile prior to 1892 and from 1902 to 1924, inclusive; about 7/8 mile from 1925 to 1933, inclusive. Run at Sheepshead Bay until 1910. Run at Saratoga by special arrangement in 1910, 1913 and 1914.

Year	Winner	Jockey	Wt.	Win val.
1888	Proctor Knott	S. Barnes	112	$40,900
1889	Chaos	G. Day	109	54,500
1890	Potomac	A. Hamilton	115	67,675
1891	His Highness	J. McLaughlin	130	61,675
1892	Morello	W. Hayward	118	40,450
1893	Domino	F. Taral	130	48,855
1894	The Butterflies	H. Griffin	112	48,710
1895	Requital	H. Griffin	115	53,190
1896	Ogden	F. Turbiville	115	43,790
1897	L'Alouette	R. Clawson	115	34,290
1898	Martimas	H. Lewis	118	36,610
1899	Chacornac	H. Spencer	114	30,630
1900	Ballyhoo Bey	T. Sloan	112	33,580
1901	Yankee	W. O'Connor	119	36,850
1902	Savable	L. Lyne	119	44,500
1903	Hamburg Belle	G. Fuller	114	36,600
1904	Artful	E. Hildebrand	114	40,830
1905	Ormondale	A. Redfern	117	32,960
1906	Electioneer	W. Shaw	117	36,880
1907	Colin	W. Miller	125	26,640
1908	Maskette	J. Notter	118	26,110
1909	Sweep	J. Butwell	126	24,100
1910	Novelty	C. H. Shilling	127	25,360
1913	Pennant	C. Borel	119	15,060
1914	Trojan	C. Burlingame	117	16,010
1915	Thunderer	J. Notter	122	16,590
1916	Campfire	J. McTaggart	125	17,340
1917	Papp	L. Allen	127	15,600
1918	Dunboyne	A. Schuttinger	127	23,360
1919	Man o' War	J. Loftus	127	26,650
1920	Step Lightly	F. Keogh	116	35,870
1921	Bunting	F. Coltiletti	117	39,700
1922	Sally's Alley	A. Johnson	116	$47,550
1923	St. James	T. McTaggart	130	64,810
1924	Mother Goose	L. McAtee	114	65,730
1925	Pompey	L. Fator	127	58,480
1926	Scapa Flow	L. Fator	122	65,980
1927	Anita Peabody	C. Lang	124	91,790
1928	High Strung	L. McAtee	122	97,990
1929	Whichone	R. Workman	125	105,730
1930	Jamestown	L. McAtee	130	99,600
1931	Top Flight	R. Workman	127	94,780
1932	Kerry Patch	P. Walls	122	88,690
1933	Singing Wood	R. Jones	122	81,700
1934	Chance Sun	W. D. Wright	122	77,510
1935	Tintagel	S. Coucci	122	66,450
1936	Pompoon	H. Richards	127	55,630
1937	Menow	C. Kurtsinger	119	56,800
1938	Porter's Mite	B. James	119	57,045
1939	Bimelech	F. A. Smith	126	57,710
1940	Our Boots	E. Arcaro	119	65,800
1941	Some Chance	W. Eads	122	57,900
1942	Occupation	G. Woolf	126	57,890
1943	Occupy	G. Woolf	126	55,635
1944	Pavot	G. Woolf	126	53,890
1945	Star Pilot	A. Kirkland	126	52,940
1946	First Flight	E. Arcaro	123	73,350
1947	Citation	A. Snider	122	78,430
1948	Blue Peter	E. Guerin	126	88,410
1949	Guillotine	T. Atkinson	122	87,585
1950	Battlefield	E. Arcaro	122	81,715
1951	Tom Fool	T. Atkinson	122	86,710
1952	Native Dancer	E. Guerin	122	82,845
1953	Porterhouse	W. Boland	122	92,875
1954	Nashua	E. Arcaro	122	88,015

BELMONT STAKES

Belmont Park; 3-year-olds; 1½ miles.

Run at Jerome Park prior to 1890; run at Morris Park from 1890 to 1905. Distance 1⅝ miles prior to 1874; reduced to 1½ miles, 1874; reduced to 1¼ miles, 1890; changed to 1½ miles, 1893; increased to 1¼ miles, 1895; increased to 1⅝ miles, 1896; changed to 1¼ miles in 1904 and 1905; increased to 1½ miles, 1926.

Year	Winner	Jockey	Wt.	Win val.
1867	Ruthless	J. Gilpatrick	107	$ 1,850
1868	General Duke	R. Swim	110	2,800
1869	Fenian	C. Miller	110	3,350
1870	Kingfisher	W. Dick	110	3,750
1871	Harry Bassett	W. Miller	110	5,450
1872	Joe Daniels	J. Rowe	110	4,500
1873	Springbok	J. Rowe	110	5,200
1874	Saxon	G. Bardee	110	4,200
1875	Calvin	R. Swim	110	4,450
1876	Algerine	W. Donohue	110	3,700
1877	Cloverbrook	C. Holloway	110	5,200
1878	Duke of Magenta	L. Hughes	118	3,850
1879	Spendthrift	S. Evans	118	4,250
1880	Grenada	L. Hughes	118	2,800
1881	Saunterer	T. Costello	118	3,000
1882	Forester	J. McLaughlin	118	2,600
1883	George Kinney	J. McLaughlin	118	3,070
1884	Panique	J. McLaughlin	118	3,150
1885	Tyrant	P. Duffy	118	2,710
1886	Inspector B	J. McLaughlin	118	2,720
1887	Hanover	J. McLaughlin	118	2,900
1888	Sir Dixon	J. McLaughlin	118	3,440
1889	Eric	W. Hayward	118	4,960
1890	Burlington	S. Barnes	118	8,560
1891	Foxford	E. Garrison	118½	5,070
1892	Patron	W. Hayward	122	6,610
1893	Comanche	W. Simms	117	5,310
1894	Henry of Navarre	W. Simms	117	6,680
1895	Belmar	F. Taral	119	2,700
1896	Hastings	H. Griffin	122	3,025
1897	Scottish Chieftain	J. Scherrer	115	3,550
1898	Bowling Brook	F. Littlefield	122	7,810
1899	Jean Bereaud	R. Clawson	122	9,445
1900	Ildrim	N. Turner	126	14,790
1901	Commando	H. Spencer	126	11,595
1902	Masterman	J. Bullman	126	13,220
1903	Africander	J. Bullman	126	12,285
1904	Delhi	G. Odom	126	11,575
1905	Tanya	E. Hildebrand	121	17,240
1906	Burgomaster	L. Lyne	126	22,700
1907	Peter Pan	G. Mountain	126	22,765
1908	Colin	J. Notter	126	22,765
1909	Joe Madden	E. Dugan	126	24,550
1910	Sweep	J. Butwell	126	$9,700
1913	Prince Eugene	R. Troxler	109	2,825
1914	Luke McLuke	M. Buxton	126	3,025
1915	The Finn	G. Byrne	126	1,825
1916	Friar Rock	E. Haynes	126	4,100
1917	Hourless	J. Butwell	126	5,800
1918	Johren	F. Robinson	126	8,950
1919	Sir Barton	J. Loftus	126	11,950
1920	Man o' War	C. Kummer	126	7,950
1921	Grey Lag	E. Sande	126	8,650
1922	Pillory	C. H. Miller	126	39,200
1923	Zev	E. Sande	126	38,000
1924	Mad Play	E. Sande	126	42,880
1925	American Flag	A. Johnson	126	38,500
1926	Crusader	A. Johnson	126	48,550
1927	Chance Shot	E. Sande	126	60,910
1928	Vito	C. Kummer	126	63,430
1929	Blue Larkspur	M. Garner	126	59,650
1930	Gallant Fox	E. Sande	126	66,040
1931	Twenty Grand	C. Kurtsinger	126	58,770
1932	Faireno	T. Malley	126	55,120
1933	Hurrryoff	M. Garner	126	49,490
1934	Peace Chance	W. D. Wright	126	43,410
1935	Omaha	W. Saunders	126	35,480
1936	Granville	J. Stout	126	29,800
1937	War Admiral	C. Kurtsinger	126	38,020
1938	Pasteurized	J. Stout	126	34,530
1939	Johnstown	J. Stout	126	37,020
1940	Bimelech	F. A. Smith	126	35,030
1941	Whirlaway	E. Arcaro	126	39,770
1942	Shut Out	E. Arcaro	126	44,520
1943	Count Fleet	J. Longden	126	35,340
1944	Bounding Home	G. L. Smith	126	55,000
1945	Pavot	E. Arcaro	126	52,675
1946	Assault	W. Mehrtens	126	75,400
1947	Phalanx	R. Donoso	126	78,900
1948	Citation	E. Arcaro	126	77,700
1949	Capot	T. Atkinson	126	60,900
1950	Middleground	W. Boland	126	61,350
1951	Counterpoint	D. Gorman	126	82,000
1952	One Count	E. Arcaro	126	82,400
1953	Native Dancer	E. Guerin	126	82,500
1954	High Gun	E. Guerin	126	89,000

EPSOM DERBY

Epsom Downs, England; 3-year-olds; 1 mile, 885 yards.

Distance one mile prior to 1784. Distance 1½ miles since 1939. Run at Newmarket from 1915 to 1918, inclusive and from 1940 to 1945, inclusive, and called the New Derby Stakes.

Year	Winner	Owner	Win val.
1780	Diomed	Sir C. Bunbury	$ 5,620
1781	Y. Eclipse	Mr. O'Kelly	6,255
1782	Assassin	Lord Egremont	5,500
1783	Saltram	Mr. Parker	5,000
1784	Sergeant	Mr. O'Kelly	5,125
1785	Aimwell	Lord Clermont	4,375
1786	Noble	Mr. Panton	5,000
1787	Sir P. Teazle	Lord Derby	4,500
1788	Sir Thomas	Prince of Wales	4,625
1789	Skyscraper	Duke of Bedford	4,652
1790	Rhadamanthus	Lord Grosvenor	4,750
1791	Eager	Duke of Bedford	4,625
1792	John Bull	Lord Grosvenor	4,875
1793	Waxy	Sir F. Poole	6,500
1794	Daedalus	Lord Grosvenor	6,125
1795	Spread Eagle	Sir F. Standish	6,500
1796	Didelot	Sir F. Standish	6,500
1797	Colt by Fidget	Duke of Bedford	5,000
1798	Sir Harry	Mr. Cookson	$5,375
1799	Archduke	Sir F. Standish	5,000
1800	Champion	Mr. Wilson	5,250
1801	Eleanor	Sir C. Bunbury	4,375
1802	Tyrant	Duke of Grafton	4,750
1803	Ditto	Sir H. Williamson	4,625
1804	Hannibal	Lord Egremont	4,625
1805	Card. Beaufort	Lord Egremont	6,250
1806	Paris	Lord Foley	5,875
1807	Election	Lord Egremont	5,875
1808	Pan	Sir H. Williamson	5,500
1809	Pope	Duke of Grafton	6,375
1810	Whalebone	Duke of Grafton	6,500
1811	Phantom	Sir J. Shelley	7,500
1812	Octavius	Mr. Ladbrook	7,125
1813	Smolensko	Sir C. Bunbury	7,375
1814	Blucher	Lord Stawell	7,125
1815	Whisker	Duke of Grafton	7,000

Epsom Derby (Cont.)

Year	Winner	Owner	Win Val.
1816	Prince Leopold	Duke of York	$7,250
1817	Azor	Mr. Payne	8,625
1818	Sam	Mr. Thornhill	8 500
1819	Tiresias	Duke of Portland	8,250
1820	Sailor	Mr. Thornhill	7,875
1821	Gustavus	Mr. Hunter	7,875
1822	Moses	Duke of York	7,625
1823	Emilius	Mr. Udny	8,375
1824	Cedric	Sir J. Shelley	8,875
1825	Middleton	Lord Jersey	9,000
1826	Lap Dog	Lord Egremont	9,000
1827	Mameluke	Lord Jersey	13,500
1828	Cadland	Duke of Rutland	13,000
1829	Frederick	Mr. Gratwicke	12,750
1830	Priam	Mr. Chifney	13,500
1831	Spaniel	Lord Lowther	15,500
1832	St. Giles	Mr. Ridsdale	14,375
1833	Dangerous	Mr. Saddler	17,625
1834	Plenipotentiary	Mr. Batson	17,125
1835	Mundig	Mr. Bowes	16,750
1836	Bay Middleton	Lord Jersey	18,125
1837	Phosphorus	Lord Berner	14,000
1838	Amato	Sir G. Heatcote	18,265
1839	Bloomsbury	Mr. W. Ridsdale	19,500
1840	Little Wonder	Mr. Robertson	19,125
1841	Coronation	Mr. Rawlinson	21,875
1842	Attila	Colonel Anson	24,500
1843	Cotherstone	Mr. Bowes	21,250
1844	Orlando	Colonel Peel	21,750
1845	Merry Monarch	Mr. Gratwick	20,000
1846	Pyrrhus the First	Mr. Gully	26,500
1847	Cossack	Mr. Pedley	26,500
1848	Surplice	Lord Clifton	28,000
1849	T. Flying Dutchman	Lord Eglinton	31,875
1850	Voltigeur	Lord Zetland	29,375
1851	Teddington	Sir J. Hawley	26,875
1852	Dan. O'Rourke	Mr. Bowes	24,350
1853	W. Australian	Mr. Bowes	26,500
1854	Andover	Mr. Gully	29,250
1855	Wild Dayrell	F. Popham	24,125
1856	Ellinton	Admiral Harcourt	28,125
1857	Blink Bonny	W. l'Anson	27,750
1858	Beadsman	Sir J. Hawley	26,615
1859	Musjid	Sir J. Hawley	33,250
1860	Thormanby	Mr. Merry	30,500
1861	Kettledrum	Colonel Towneley	30,500
1862	Caractacus	Mr. Snewing	32,125
1863	Macaroni	R. C. Naylor	34,500
1864	Blair Athol	W. l'Anson	32,500
1865	Gladiateur	C'nt F. deLagrange	34,375
1866	Lord Lyon	R. Sutton	37,750
1867	Hermit	Mr. Chaplin	35,000
1868	Blue Gown	Sir J. Hawley	34,000
1869	Pretender	J. Johnstone	31,125
1870	Kingcraft	Lord Falmouth	38,875
1871	Favonius	B. Rothschild	25,625
1872	Cremorne	H. Savile	24,250
1873	Doncaster	Mr. Merry	24,125
1874	Geo. Frederick	W. S. Cartwright	26,750
1875	Calopin	Prince Batthany	24,750
1876	Kisber	A. Baltazzi	27,875
1877	Silbio	Lord Falmouth	30,250
1878	Sefton	W. S. Crawfurd	29,125
1879	Sir Bevys	Mr. Acton	35,125
1880	Bend Or	D. of Westminster	31,875
1881	Iroquois†	P. Lorillard	29,625
1882	Shotover	D. of Westminster	23,875
1883	St. Blaise	Sir F. Johnstone	25,750
1884*	St. Gatien	J. Hammond	
	Harvester	Sir J. Willoughby	24,500
1885	Melton	Lord Hastings	22,625
1886	Ormonde	D. of Westminster	$23,500
1887	Mer. Hampton	Mr. Abington	22,625
1888	Ayrshire	Duke of Portland	18,375
1889	Donovan	Duke of Portland	20,250
1890	Sanfoin	Sir J. Miller	29,700
1891	Common	Sir F. Johnstone	27,550
1892	Sir Hugo	Lord Bradford	34,900
1893	Isinglass	Mr. McCalmont	27,575
1894	Ladas	Lord Rosebery	27,250
1895	Sir Visto	Lord Rosebery	27,250
1896	Persimmon	Prince of Wales	27,250
1897	Galtee More	Mr. Gubbins	27,250
1898	Jeddah	J. Larnach	27,250
1899	Flying Fox	D. of Westminster	27,250
1900	Diamond Jubilee	Prince of Wales	27,250
1901	Volodyovski†	W. C. Whitney	28,350
1902	Ard Patrick	J. Gubbins	27,250
1903	Rock Sand	Sir J. Miller	32,500
1904	St. Amant	L. de Rothschild	32,250
1905	Cicero	Lord Rosebery	32,250
1906	Spearmint	Maj. E. Loder	32,250
1907	Orby†	R. Croker	32,250
1908	Signorinetta	Chev. Ginistrelli	32,250
1909	Minoru	King Edward	32,250
1910	Lemberg	Mr. Fairie	32,250
1911	Sunstar	J. B. Joel	32,250
1912	Tagalie	W. Raphael	32,250
1913	Aboyeur	A. P. Cunliffe	32,250
1914	Durbar II†	H. B. Duryea	32,250
1915	Pommern	S. Joel	12,000
1916	Fifinella	E. Hulton	14,500
1917	Gay Crusader	Mr. Fairie	10,250
1918	Gainsborough	Lady Jas. Douglas	20,000
1919	Grand Parade	Lord Glanely	32,250
1920	Spion Kop	Maj. G. Loder	32,250
1921	Humorist	J. B. Joel	32,250
1922	Captain Cuttle	Lord Woolavington	51,250
1923	Papyrus	Ben Irish	56,800
1924	Sansovino	Lord Derby	59,025
1925	Manna	H. E. Morris	55,475
1926	Coronach	Lord Woolavington	51,750
1927	Call Boy	Frank Curzon	63,075
1928	Felstead	Sir H. C'liffe-Owen	58,025
1929	Trigo	W. Barnett	59,825
1930	Blenheim	H. H. Aga Khan	50,180
1931	Cameronian	J. A. Dewar	48,640
1932	April the Fifth	T. Walls	34,056
1933	Hyperion	Lord Derby	49,182
1934	Windsor Lad	H. H. M. of Raj'pla	46,760
1935	Bahram	H. H. Aga Khan	46,080
1936	Mahmoud	H. H. Aga Kahn	49,670
1937	Mid-Day Sun	Mrs. G. B. Miller	47,205
1938	Bois Roussel	P. Beatty	43,644
1939	Blue Peter	Lord Rosebery	42,680
1940	Pont l'Eveque	F. Darling	23,803
1941	Owen Tudor	Mrs. M'D'ald-Buc'n	18,003
1942	Watling Street	Lord Derby	15,530
1943	Straight Lead	Miss Dorothy Paget	17,552
1944	Ocean Swell	Lord Rosebery	23,604
1945	Dante	Sir Eric Ohlson	33,356
1946	Airborne	J. E. Ferguson	38,662
1947	Pearl Diver	B. G. de Waldner	38,788
1948	My Love	H. H. Aga Khan Leon Volterra	49,936
1949	Nimbus	Mrs. M. Glenister	56,980
1950	Galcador	Marcel Boussac	51,030
1951	Arctic Prince	Joseph McGrath	54,264
1952	Tulyar	H. H. Aga Khan	57,353
1953	Pinza	Sir Victor Sassoon	53,530
1954	Never Say Die†	Robert S. Clark	47,768

* Dead heat; stake divided. † American bred or owned

GRAND NATIONAL STEEPLECHASE

Liverpool, England; 6-year-olds and over; 4 miles, 856 yards (Aintree Course)

Year	Winner	Owner	Starters	Value
1839	Lottery	J. Elmore	17	.....
1840	Jerry	Mr. Villebois	12	.....
1841	Charity	Lord Craven	11	.....
1842	Gaylad	J. Elmore	15	.....
1843	Vanguard	Lord Chesterfield	16	.....
1844	Pioneer	Mr. Quartermaine	22	.....
1845	Cure All	W. S. Crawfurd	15	.....
1846	Pioneer	Mr. Adams	22	.....
1847	Matthew	Mr. Courtenay	26	.....
1848	Chandler	Capt. Little	30	.....
1849	Peter Simple	Mr. S. Mason, Jr.	24	$4,025
1850	Abd el Kader	Mr. Osborne	32	.....
1851	Abd el Kader	Mr. Osborne	21	.....
1852	Miss Mowbray	T. F. Mason	24	3,400
1853	Peter Simple	Capt. Little	21	.....
1854	Bourton	Mr. Moseley	..	.....
1855	Wanderer	Mr. Dennis	20	.....
1856	Freetrader	W. Barnet	21	.....
1857	Emigrant	G. Hodgman	28	5,575
1858	Little Charley	C. Capel	16	.....
1859	Half Caste	Mr. Willoughby	20	4,200
1860	Anatis	C. Capel	19	.....
1861	Jealousy	J. Bennett	24	4,925
1862	Huntsman	Visc't de Namur	13	.....
1863	Emblem	Lord Coventry	16	4,275
1864	Emblematic	Lord Coventry	25	.....
1865	Alcibiade	B. J. Angell	23	5,175
1866	Salamander	Mr. Studd	30	.....
1867	Cortolvin	Duke of Hamilton	23	8,300
1868	The Lamb	Lord Poulett	21	7,850
1869	The Colonel	Mr. Weyman	22	8,800
1870	The Colonel	M. Evans	23	7,325
1871	The Lamb	Lord Poulett	25	8,325
1872	Casse Tete	E. Brayley	25	7,275
1873	Disturbance	Capt. Machell	28	9,800
1874	Reugny	Capt. Machell	22	9,450
1875	Pathfinder	H. Bird	18	9,700
1876	Regal	Capt. Machell	19	7,550
1877	Austerlitz	F. G. Hobson	16	6,450
1878	Shifnal	J. Nightingall	12	8,450
1879	The Liberator	G. Moore	18	9,500
1880	Empress	P. Ducrot	14	6,250
1881	Woodbrook	Capt. Kirkwood	13	4,900
1882	Seaman	Lord Manners	12	6,675
1883	Zoedone	Prince C. Kinsky	10	4,625
1884	Voluptuary	H. F. Boyd	15	5,175
1885	Roquefort	A. Cooper	19	5,175
1886	Old Joe	Mr. Douglas	23	6,805
1887	Gamecock	E. Jay	16	6,080
1888	Playfair	Col. E. W. Baird	20	5,905
1889	Frigate	M. A. Maher	20	6,170
1890	Ilex	G. Masterman	16	8,325
1891	Come Away	W. G. Jameson	21	8,400
1892	Father O'Flynn	C. G. Wilson	25	8,400
1893	Cloister	C. G. Duff	15	9,825
1894	Why Not	Capt. C. H. Fenw'k	14	9,875
1895	W. M. f. Borneo	J. Widger	19	9,875
1896	The Soarer	Lord Wavertree	28	$ 9,875
1897	Manifesto	H. M. Dyas	28	9,875
1898	Drogheda	C. G. Adams	25	9,875
1899	Manifesto	J. G. Bulteel	19	9,875
1900	Ambush II	Prince of Wales	16	9,875
1901	Grudon	B. Bletsoe	24	9,875
1902	Shannon Lass	A. Gorham	21	10,000
1903	Drumcree	J. S. Morrison	23	10,000
1904	Moifaa	G. H. Gollan	26	10,000
1905	Kirkland	F. Bibby	27	10,125
1906	Ascetic's Silver	Prince Hatzfeldt	23	10,875
1907	Eremon	S. Howard	23	12,000
1908	Rubio†	Maj. F. Douglas-Pennant	24	12,000
1909	Lutteur III	J. Hennessy	32	12,000
1910	Jenkinstown	S. Howard	25	12,000
1911	Glenside	F. Bibby	26	12,500
1912	Jerry M.	Mr. C. G. Assheton-Smith	24	16,000
1913	Covertcoat	Sir C. G. Assheton-Smith	22	15,850
1914	Sunloch	T. Tyler	20	17,575
1915	Ally Sloper	Lady Nelson	20	17,575
1916*	Bermouth	P. F. Heybourn	21	5,750
1917*	Ballymacad	Sir G. Bullough	19	6,025
1918*	Poethlyn	Mrs. H. Peel	17	4,925
1919*	Poethlyn	Mrs. H. Peel	22	17,950
1920	Troytown	Major Gerrard	24	21,800
1921	Shaun Spadah	T. McAlpine	35	39,925
1922	Music Hall	Hugh Kershaw	32	35,000
1923	Sgt. Murphy†	Stephen Sanford	28	36,100
1924	Master Rob't	Lord Airlie	30	40,825
1925	Double Chance	Major D. Goold	33	40,600
1926	Jack Horner	C. Schwartz	30	31,550
1927	Sprig	Mrs. M. Partridge	37	41,075
1928	Tipperary Tim	H. S. Kenyon	42	55,900
1929	Gregalach	Mrs. M. A. G'm'll	66	64,625
1930	Shaun Goilin	W. Midwood	41	48,650
1931	Grakle	C. R. Taylor	36	37,240
1932	Forbra	W. Parsonage	36	28,577
1933	Kellsboro Jack†	Mrs. F. A. Clark	34	36,725
1934	Golden Miller	Miss D. Paget	30	36,325
1935	Reynoldstown	Maj. Noel F'rlong	27	32,725
1936	Reynoldstown	Maj. Noel F'rlong	35	35,100
1937	Royal Mail	H. Lloyd Thomas	33	33,225
1938	Battleship†	Mrs. M. Scott	36	37,545
1939	Workman	Sir A. Maguire	37	31,966
1940	Bogskar	Lord Stalbridge	30	16,887
1946	Lovely Cottage	Jock Morant	34	35,300
1947	Caughoo	J. J. McDowell	57	39,728
1948	Sheila's Cottage	John Proctor	43	36,428
1949	Russian Hero	W. F. Williamson	43	37,868
1950	Freebooter	Mrs. L. Brotherton	49	27,942
1951	Nickel Coin	Jeffrey Royle	36	24,766
1952	Teal	Harry Lane	47	25,110
1953	Early Mist	J. H. Griffin	31	26,125
1954	Royal Tan	J. H. Griffin	29	24,288

* Substitute race. † American bred or owned.

"TRIPLE CROWN" WINNERS IN THE UNITED STATES

(Kentucky Derby, Preakness and Belmont Stakes)

ear	Horse	Owner
919	Sir Barton	J. K. L. Ross
930	Gallant Fox	William Woodward
935	Omaha	William Woodward
937	War Admiral	Samuel D. Riddle
941	Whirlaway	Warren Wright
943	Count Fleet	Mrs. John Hertz
945	Assault	Robert J. Kleberg
948	Citation	Warren Wright

HOLLYWOOD GOLD CUP

Hollywood Park; 3-year-olds and over; 1¼ miles.

Run at Santa Anita Park in 1949.

Year	Winner, age	Jockey	Wt.	Win val.
1938	Seabiscuit (5)	G. Woolf	133	$37,150
1939	Kayak II (4)	G. Woolf	125	35,075
1940	Challedon (4)	G. Woolf	133	36,200
1941	Big Pebble (5)	J. Westrope	119	62,475
1944	Happy Issue (4)	H. Woodhouse	119	60,600
1945	Challenge Me (4)	A. Skoronski	108	48,230
1946	Triplicate (5)	B. James	113	79,900
1947	Cover Up (4)	R. Permane	117	$ 73,500
1948	Shannon II (7)	J. Adams	116	67,600
1949	Solidarity (4)	R. Neves	115	100,000
1950	Noor (5)	J. Longden	130	100,000
1951	Citation (6)	S. Brooks	120	100,000
1952	Two Lea (6)	H. Moreno	113	100,000
1953	Royal Serenade (5)	J. Longden	113	100,000
1954	Correspondent (4)	J. Longden	110	100,000

KENTUCKY DERBY

Churchill Downs; 3-year-olds; 1¼ miles

Distance 1½ miles prior to 1896.

Year	Winner	Jockey	Wt.	Win val.
1875	Aristides	O. Lewis	100	$2,850
1876	Vagrant	R. Swim	97	2,950
1877	Baden Baden	W. Walker	100	3,300
1878	Day Star	J. Carter	100	4,050
1879	Lord Murphy	C. Schauer	100	3,550
1880	Fonso	G. Lewis	105	3,800
1881	Hindoo	J. McLaughlin	105	4,410
1882	Apollo	B. Hurd	102	4,560
1883	Leonatus	W. Donohue	105	3,760
1884	Buchanan	I. Murphy	110	3,990
1885	Joe Cotton	E. Henderson	110	4,630
1886	Ben Ali	P. Duffy	118	4,890
1887	Montrose	I. Lewis	118	4,200
1888	Macbeth II	G. Covington	115	4,740
1889	Spokane	T. Kiley	118	4,970
1890	Riley	I. Murphy	118	5,460
1891	Kingman	I. Murphy	122	4,680
1892	Azra	A. Clayton	122	4,230
1893	Lookout	E. Kunze	122	4,090
1894	Chant	F. Goodale	122	4,020
1895	Halma	J. Perkins	122	2,970
1896	Ben Brush	W. Simms	117	4,850
1897	Typhoon II	F. Garner	117	4,850
1898	Plaudit	W. Simms	117	4,850
1899	Manuel	F. Taral	117	4,850
1900	Lieut. Gibson	J. Boland	117	4,850
1901	His Eminence	J. Winkfield	117	4,850
1902	Alan-a-Dale	J. Winkfield	117	4,850
1903	Judge Himes	H. Booker	117	4,850
1904	Elwood	F. Prior	117	4,850
1905	Agile	J. Martin	122	4,850
1906	Sir Huon	R. Troxler	117	4,850
1907	Pink Star	A. Minder	117	4,850
1908	Stone Street	A. Pickens	117	4,850
1909	Wintergreen	V. Powers	117	4,850
1910	Donau	F. Herbert	117	4,850
1911	Meridian	G. Archibald	117	4,850
1912	Worth	C. H. Shilling	117	4,850
1913	Donerail	R. Goose	117	5,475
1914	Old Rosebud	J. McCabe	114	9,125
1915	Regret	J. Notter	112	$11,450
1916	George Smith	J. Loftus	117	9,750
1917	Omar Khayyam	C. Borel	117	16,600
1918	Exterminator	W. Knapp	114	14,700
1919	Sir Barton	J. Loftus	112½	20,825
1920	Paul Jones	T. Rice	126	30,375
1921	Behave Yourself	C. Thompson	126	38,450
1922	Morvich	A. Johnson	126	46,775
1923	Zev	E. Sande	126	53,600
1924	Black Gold	J. D. Mooney	126	52,775
1925	Flying Ebony	E. Sande	126	52,950
1926	Bubbling Over	A. Johnson	126	50,075
1927	Whiskery	L. McAtee	126	51,000
1928	Reigh Count	C. Lang	126	55,375
1929	Clyde Van Dusen	L. McAtee	126	53,950
1930	Gallant Fox	E. Sande	126	50,725
1931	Twenty Grand	C. Kurtsinger	126	48,725
1932	Burgoo King	E. James	126	52,350
1933	Brokers Tip	D. Meade	126	48,925
1934	Cavalcade	M. Garner	126	28,175
1935	Omaha	W. Saunders	126	39,525
1936	Bold Venture	I. Hanford	126	37,725
1937	War Admiral	C. Kurtsinger	126	52,050
1938	Lawrin	E. Arcaro	126	47,050
1939	Johnstown	J. Stout	126	46,350
1940	Gallahadion	C. Bierman	126	60,150
1941	Whirlaway	E. Arcaro	126	61,275
1942	Shut Out	W. D. Wright	126	64,225
1943	Count Fleet	J. Longden	126	60,725
1944	Pensive	C. McCreary	126	64,675
1945	Hoop Jr.	E. Arcaro	126	64,850
1946	Assault	W. Mehrtens	126	96,400
1947	Jet Pilot	E. Guerin	126	92,160
1948	Citation	E. Arcaro	126	83,400
1949	Ponder	S. Brooks	126	91,600
1950	Middleground	W. Boland	126	92,650
1951	Count Turf	C. McCreary	126	98,050
1952	Hill Gail	E. Arcaro	126	96,300
1953	Dark Star	H. Moreno	126	90,050
1954	Determine	R. York	126	102,050

MASSACHUSETTS HANDICAP

Suffolk Downs; 3-year-olds and over; 1¼ miles.

Distance 1⅛ miles prior to 1948.

Year	Winner, age	Jockey	Wt.	Win val.
1935	Top Row (4)	G. Woolf	116	$18,750
1936	Time Supply (5)	R. Workman	121	23,500
1937	Seabiscuit (4)	J. Pollard	130	51,780
1938	Menow (3)	N. Wall	107	40,550
1939	Fighting Fox (4)	J. Stout	113	49,250
1940	Eight Thirty (4)	H. Richards	126	46,550
1941	War Relic (3)	T. Atkinson	102	48,350
1942	Whirlaway (4)	G. Woolf	130	43,850
1943	Market Wise (5)	V. Nodarse	126	39,650
1944	First Fiddle (5)	J. Longden	124	41,850
1945	First Fiddle (6)	J. Longden	121	$42,750
1946	Pavot (4)	A. Kirkland	120	47,750
1947	Stymie (6)	C. McCreary	128	41,150
1948	Beauchef (5)	R. Donoso	115	47,250
1949	First Nighter (4)	J. Renick	104	39,200
1950	Cochise (4)	E. Arcaro	120	21,400
1951	One Hitter (5)	T. Atkinson	113	22,000
1952	To Market (4)	W. Boland	109	32,600
1953	Royal Vale (5)	J. Westrope	125	43,300
1954	Wise Margin (4)	K. Stuart	111	43,100

PREAKNESS STAKES

Pimlico; 3-year-olds; 1⅜ miles

Distance 1½ miles prior to 1889; 1¼ miles in 1889; 1⅛ miles 1894 to 1900, inclusive, and 1908; 1 mile and 70 yards from 1901 to 1907, inclusive; 1 mile in 1909 and 1910; 1⅛ miles from 1911 to 1924, inclusive. Run at Brooklyn Jockey Club's Gravesend Course from 1894 to 1908, inclusive. Run in two divisions in 1918.

Year	Winner	Jockey	Wt.	Win val.
1873	Survivor	G. Barbee	110	.....
1874	Culpepper	M. Donohue	110	.....
1875	Tom Ochiltree	L. Hughes	110	.....
1876	Shirley	G. Barbee	110	.....
1877	Cloverbrook	C. Holloway	110	.....
1878	Duke of Magenta	C. Holloway	110	.....
1879	Harold	W. Hughes	110	$2,550
1880	Grenada	W. Hughes	110	2,000
1881	Saunterer	W. Costello	110	1,950
1882	Vanguard	W. Costello	110	1,250
1883	Jacobus	G. Barbee	110	1,635
1884	Knight of Ellerslie	S. H. Fisher	110	1,905
1885	Tecumseh	J. McLaughlin	118	2,160
1886	The Bard	S. H. Fisher	118	2,050
1887	Dunboyne	W. Donohue	118	1,675
1888	Refund	F. Littlefield	118	1,185
1889	Buddhist	H. Anderson	118	1,130
1894	Assignee	F. Taral	122	1,830
1895	Belmar	F. Taral	115	1,350
1896	Margrave	H. Griffin	115	1,350
1897	Paul Kauvar	Thorpe	108	1,420
1898	Sly Fox	W. Simms	120	1,450
1899	Half Time	R. Clawson	104	1,580
1900	Hindus	H. Spencer	106	1,900
1901	The Parader	Landry	118	1,605
1902	Old England	L. Jackson	115	2,240
1903	Flocarline	W. Gannon	113	1,875
1904	Bryn Mawr	E. Hildebrand	108	2,355
1905	Cairngorm	W. Davis	114	2,145
1906	Whimsical	W. Miller	108	2,355
1907	Don Enrique	G. Mountain	107	2,260
1908	Royal Tourist	E. Dugan	112	2,455
1909	Effendi	W. Doyle	116	3,225
1910	Layminster	R. Estep	84	3,300
1911	Watervale	E. Dugan	112	2,700
1912	Colonel Holloway	C. Turner	107	1,450
1913	Buskin	J. Butwell	117	1,670
1914	Holiday	A. Schuttinger	108	1,355
1915	Rhine Maiden	D. Hoffman	104	1,275
1916	Damrosch	L. McAtee	115	$ 1,380
1917	Kalitan	E. Haynes	116	4,800
1918	War Cloud	J. Loftus	117	12,250
1918	Jack Hare Jr.	C. Peak	115	11,250
1919	Sir Barton	J. Loftus	126	24,500
1920	Man o' War	C. Kummer	126	23,000
1921	Broomspun	F. Coltiletti	114	43,000
1922	Pillory	L. Morris	114	51,000
1923	Vigil	B. Marinelli	114	52,000
1924	Nellie Morse	J. Merimee	121	54,000
1925	Coventry	C. Kummer	126	52,700
1926	Display	J. Maiben	126	53,625
1927	Bostonian	A. Abel	126	53,100
1928	Victorian	R. Workman	126	60,000
1929	Dr. Freeland	L. Schaefer	126	52,325
1930	Gallant Fox	E. Sande	126	51,925
1931	Mate	G. Ellis	126	48,225
1932	Burgoo King	E. James	126	50,375
1933	Head Play	C. Kurtsinger	126	26,850
1934	High Quest	R. Jones	126	25,175
1935	Omaha	W. Saunders	126	25,325
1936	Bold Venture	G. Woolf	126	27,325
1937	War Admiral	C. Kurtsinger	126	45,600
1938	Dauber	M. Peters	126	51,857
1939	Challedon	G. Seabo	126	53,710
1940	Bimelech	F. A. Smith	126	53,230
1941	Whirlaway	E. Arcaro	126	49,365
1942	Alsab	B. James	126	58,175
1943	Count Fleet	J. Longden	126	43,190
1944	Pensive	C. McCreary	126	60,075
1945	Polynesian	W. D. Wright	126	66,170
1946	Assault	W. Mehrtens	126	96,620
1947	Faultless	D. Dodson	126	98,005
1948	Citation	E. Arcaro	126	91,870
1949	Capot	T. Atkinson	126	79,985
1950	Hill Prince	E. Arcaro	126	56,115
1951	Bold	E. Arcaro	126	83,110
1952	Blue Man	C. McCreary	126	86,135
1953	Native Dancer	E. Guerin	126	65,200
1954	Hasty Road	J. Adams	126	91,600

SANTA ANITA DERBY

Santa Anita Park; 3-year-olds; 1⅛ miles

Distance 1⅛ miles prior to 1938; 1¼ miles in 1947.

Year	Winner	Jockey	Wt.	Win val.
1935	Gille	S. Coucci	126	$19,650
1936	He Did	W. D. Wright	126	26,000
1937	Fairy Hill	M. Peters	121	45,425
1938	Stagehand	J. Westrope	118	42,350
1939	Ciencia	C. Bierman	115	41,850
1940	Sweepida	R. Neves	120	43,850
1941	Porter's Cap	L. Haas	120	44,975
1945	Bymeabond	G. Woolf	119	37,250
1946	Knockdown	R. Permane	122	$74,680
1947	On Trust	J. Longden	118	81,750
1948	Saimagundi	J. Longden	118	79,800
1949	Old Rockport	G. Glisson	118	94,700
1950	Your Host	J. Longden	118	89,800
1951	Rough'n Tumble	E. Arcaro	118	81,500
1952	Hill Gail	T. Atkinson	118	92,900
1953	Chanlea	E. Arcaro	118	84,500
1954	Determine	R. York	118	84,800

SANTA ANITA HANDICAP

Santa Anita Park; 3-year-olds and over; 1¼ miles.

Year	Winner; age	Jockey	Wt.	Win val.
1935	Azucar (7)	G. Woolf	117	$108,400
1936	Top Row (5)	W. D. Wright	116	104,600
1937	Rosemont (5)	H. Richards	124	90,700
1938	Stagehand (3)	N. Wall	100	91,450
1939	Kayak II (4)	J. Adams	110	91,100
1940	Seabiscuit (7)	J. Pollard	130	86,650
1941	Bay View (4)	N. Wall	108	89,360
1945	Thumbs Up (6)	J. Longden	130	82,922
1946	War Knight (6)	J. Adams	115	$101,205
1947	Olhaverry (8)	M. Peterson	116	98,900
1948	Talon (6)	E. Arcaro	122	102,500
1949	Vulcan's Forge (4)	D. Gorman	119	102,000
1950	Noor (5)	J. Longden	110	97,900
1951	Moonrush (5)	J. Longden	114	97,900
1952	Miche (7)	J. Covalli	115	104,100
1953	Mark-Ye-Well (4)	E. Arcaro	130	97,900
1954	Rejected (4)	W. Shoemaker	119	105,900

SUBURBAN HANDICAP

Belmont Park; 3-year-olds and over; 1¼ miles.

Run at Sheepshead Bay prior to 1913.

Year	Winner; age	Jockey	Wt.	Win val.
1884	Gen. Monroe (6)	W. Donohue	124	$ 4,945
1885	Pontiac (4)	H. Olney	102	5,855
1886	Troubadour (4)	W. Fitzpatrick	115	5,697
1887	Eurus (4)	G. Davis	102	6,065
1888	Elkwood (5)	W. Martin	119	6,812
1889	Raceland (4)	E. Garrison	120	6,900
1890	Salvator (4)	I. Murphy	127	6,900
1891	Loantaka (5)	M. Bergen	110	9,900
1892	Montana (4)	E. Garrison	115	17,750
1893	Lowlander (5)	P. McDermott	105	17,750
1894	Ramapo (4)	F. Taral	120	12,070
1895	Lazzarone (4)	A. Hamilton	115	4,730
1896	Henry of Navarre (5)	H. Griffin	129	5,850
1897	Ben Brush (4)	W. Simms	123	5,850
1898	Tillo (4)	A. Clayton	119	6,800
1899	Imp (5)	N. Turner	114	6,800
1900	Kinley Mack (4)	P. McCue	125	6,800
1901	Alcedo (4)	H. Spencer	112	7,800
1902	Gold Heels (4)	O. Wonderly	124	7,800
1903	Africander (3)	G. Fuller	110	16,490
1904	Hermis (5)	A. Redfern	127	16,800
1905	Beldame (4)	F. O'Neill	123	16,800
1906	Go Between (5)	W. Shaw	116	16,800
1907	Nealon (4)	W. Dugan	113	16,800
1908	Ballot (4)	J. Notter	127	19,750
1909	Fitz Herbert (3)	E. Dugan	105	3,850
1910	Olambala (4)	G. Archibald	115	4,800
1913	Whisk Broom II (6)	J. Notter	139	3,000
1915	Stromboli (4)	C. Turner	122	3,925
1916	Friar Rock (3)	M. Garner	101	3,450
1917	Boots (6)	J. Loftus	122	4,900
1918	Johren (3)	F. Robinson	110	5,850
1919	Corn Tassel (5)	L. Ensor	108	5,200
1920	Paul Jones (3)	A. Schuttinger	106	6,350
1921	Audacious (5)	C. Kummer	120	$8,100
1922	Captain Alcock (5)	C. Ponce	108	8,200
1923	Grey Lag (5)	E. Sande	135	7,800
1924	Mad Hatter (8)	E. Sande	125	9,150
1925	Sting (4)	B. Bruening	122	11,600
1926	Crusader (3)	J. Callahan	104	13,150
1927	Crusader (4)	C. Kummer	127	11,875
1928	Dolan (4)	J. Callahan	105	13,875
1929	Bateau (4)	E. Ambrose	112	14,100
1930	Petee Wrack (5)	E. Sande	122	11,850
1931	Mokatam (4)	A. Robertson	123	11,200
1932	White Clover II (6)	R. Workman	115	11,100
1933	Equipoise (5)	R. Workman	132	7,250
1934	Ladysman (4)	S. Coucci	114	5,750
1935	Head Play (5)	C. Kurtsinger	114	12,175
1936	Firethorn (4)	H. Richards	116	12,125
1937	Aneroid (4)	C. Rosengarten	110	10,950
1938	Snark (5)	J. Longden	120	17,050
1939	Cravat (4)	J. Westrope	121	17,750
1940	Eight Thirty (4)	H. Richards	127	19,850
1941	Your Chance (4)	D. Meade	114	25,200
1942	Market Wise (4)	B. James	124	27,800
1943	Don Bingo (4)	J. Renick	104	27,600
1944	Aletern (5)	H. Lindberg	108	39,210
1945	Devil Diver (6)	E. Arcaro	132	34,995
1946	Armed (5)	D. Dodson	130	43,000
1947	Assault (4)	E. Arcaro	130	40,000
1948	Harmonic (4)	W. Mehrtens	109	39,700
1949	Vulcan's Forge (4)	E. Arcaro	124	43,200
1950	Loser Weeper (5)	N. Combest	115	41,400
1951	Busanda (4)	K. Stuart	102	42,100
1952	One Hitter (6)	T. Atkinson	112	41,900
1953	Tom Fool (4)	T. Atkinson	128	40,400
1954	Straight Face	T. Atkinson	118	44,400

TRAVERS STAKES—Saratoga; 3-year-olds; 1¼ miles.

Distance 1¼ miles prior to 1890; 1½ miles in 1890, 1891, and 1892; 1¼ miles in 1893, 1894 and 1897; 1½ miles in 1895, 1901, 1902, and 1903. Run as Travers Midsummer Derby from 1927 to 1932, inclusive, Run at Belmont Park from 1943 to 1945, inclusive.

Year	Winner	Jockey	Wt.	Win val.
1864	Kentucky	Gilpatrick	100	$2,950
1865	Maiden	Sewell	97	3,400
1866	Merrill	Abe	100	3,500
1867	Ruthless	Gilpatrick	103	2,850
1868	The Banshee	Smith	97	3,150
1869	Glenelg	C. Miller	110	3,000
1870	Kingfisher	C. Miller	110	4,950
1871	Harry Bassett	W. Miller	110	5,600
1872	Joe Daniels	J. Rowe	110	5,500
1873	Tom Bowling	R. Swim	110	5,400
1874	Attila	Barbee	110	5,050
1875	D'Artagnan	Barbee	110	4,850
1876	Sultana	Hayward	107	3,700
1877	Baden Baden	Sayers	110	4,550
1878	Duke of Magenta	Hughes	118	4,250
1879	Falsetto	I. Murphy	118	4,950
1880	Grenada	Hughes	118	3,750
1881	Hindoo	J. McLaughlin	118	2,950
1882	Carley B.	Quantrell	115	3,450
1883	Barnes	J. McLaughlin	118	3,400
1884	Rataplan	Fitzpatrick	118	4,150
1885	Bersan	Spellman	118	4,025
1886	Inspector B.	J. McLaughlin	118	3,825
1887	Carey	Blaylock	118	3,825
1888	Sir Dixon	J. McLaughlin	118	4,625
1889	Long Dance	Barnes	118	3,700
1890	Sir John	Bergen	118	4,925
1891	Vallera	R. Williams	122	2,900
1892	Azra	Clayton	122	$ 2,750
1893	Stowaway	McDermott	107	2,450
1894	Henry of Navarre	Taral	125	2,350
1895	Liza	Griffin	104	1,125
1897	Rensselaer	Taral	126	1,425
1901	Blues	Shaw	126	6,750
1902	Hermis	Rice	111	6,750
1903	Ada Nay	F. O'Neill	106	8,150
1904	Broomstick	T. Burns	129	5,850
1905	Dandelion	Shaw	111	8,350
1906	Gallavant	W. Miller	111	5,800
1907	Frank Gill	Notter	129	5,800
1908	Dorante	J. Lee	116	5,800
1909	Hilarious	Scoville	129	5,800
1910	Dalmatian	C. H. Shilling	129	4,825
1913	Rock View	T. McTaggart	129	2,725
1914	Roamer	J. Butwell	123	3,000
1915	Lady Rotha	M. Garner	106	2,150
1916	Spur	J. Loftus	129	3,125
1917	Omar Khayyam	J. Butwell	129	5,350
1918	Sun Briar	W. Knapp	120	7,700
1919	Hannibal	L. Ensor	120	9,850
1920	Man o' War	A. Schuttinger	129	9,250
1921	Sporting Blood	L. Lyke	116	10,250
1922	Little Chief	L. Fator	123	11,350
1923	Wilderness	B. Marinelli	120	13,550
1924	Sun Flag	F. Keogh	115	14,600
1925	Dangerous	C. Kummer	115	13,400

Travers Stakes (Cont.)

1926	Mars	F. Coltiletti	123	$15,050	1941	Whirlaway	A. Robertson	130	$16,900
1927	Brown Bud	L. Fator	120	29,925	1942	Shut Out	E. Arcaro	130	17,825
1928	Petee-Wrack	S. O'Donnell	117	30,550	1943	Eurasian	S. Brooks	112	19,850
1929	Beacon Hill	A. Robertson	117	31,820	1944	By Jimminy	E. Arcaro	126	25,015
1930	Jim Dandy	F. J. Baker	120	27,050	1945	Adonis	C. McCreary	110	28,680
1931	Twenty Grand	L. McAtee	126	33,000	1946	Natchez	T. Atkinson	124	24,750
1932	War Hero	J. Gilbert	115	23,150	1947	Young Peter	T. May	124	19,375
1933	Inlander	R. Jones	126	21,050	1948	Ace Admiral	T. Atkinson	108	19,650
1934	Observant	L. Humphries	112	14,650	1949	Arise	C. Errico	108	16,000
1935	Gold Foam	S. Coucci	112	14,675	1950	Lights Up	G. Hettinger	110	16,350
1936	Granville	J. Stout	127	14,700	1951	Battlefield	E. Arcaro	123	15,000
1937	Burning Star	W. D. Wright	117	14,550	1952	One Count	E. Guerin	126	16,450
1938	Thanksgiving	E. Arcaro	117	14,400	1953	Native Dancer	E. Guerin	126	18,850
1939	Eight Thirty	H. Richards	117	16,575	1954	Fisherman	H. Woodhouse	120	19,500
1940	Fenelon	J. Stout	122	17,425					

WASHINGTON PARK FUTURITY

Washington Park; 2-year-olds; 3/4 mile.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1937	Tiger	A. Robertson	117	$26,135	1947	Bewitch	D. Dodson	119	$63,150
1940	Porter's Cap	C. Bierman	117	30,780	1948	Model Cadet	A. Skoronski	118	60,750
1941	Alsab	R. L. Vedder	119	32,575	1949	Curtice	O. Scurlock	115	57,850
1942	Occupation	L. Balaski	122	58,475	1950	To Market	A. Rivera	122	57,390
1943	Occupy	L. Whiting	113	43,625	1951	Oh Leo	P. Bailey	122	62,700
1944	Free for All	O. Grohs	122	47,850	1952	Mr. Paradise	E. Arcaro	116	79,710
1945	Revoked	A. Bodiou	118	56,700	1953	Hasty Road	E. Arcaro	122	99,645
1946	Education	J. Adams	118	65,125	1954	Georgian	C. McCreary	116	88,380

WIDENER

Hialeah Park; 3-year-olds and over; 1¼ miles

Run as Widener Challenge Cup Handicap prior to 1938. Run as Widener Handicap from 1938 to 1944, inclusive.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1936	Mantagna (4)	E. Litzenberger	109	$10,150	1947	Armed (6)	D. Dodson	129	$43,900
1937	Columbiana (4)	H. Le Blanc	103	52,000	1948	El Mono (4)	P. Roberts	112	43,800
1938	War Admiral (4)	C. Kurtsinger	130	49,550	1949	Coaltown (4)	T. Atkinson	123	42,300
1939	Bull Lea (4)	I. Anderson	119	46,450	1950	Royal Governor (6)	C. Rogers	118	43,000
1940	Many Stings (5)	R. Donoso	109	52,000	1951	Sunglow (4)	D. Dodson	116	54,100
1941	Big Pebble (5)	G. Seabo	109	51,800	1952	Spartan Valor (4)	J. Stout	119	51,300
1942	The Rhymer (4)	E. Arcaro	111	53,950	1953	Oil Capitol (6)	C. McCreary	114	93,200
1944	Four Freedoms (4)	E. Arcaro	109½	29,350	1954	Landlocked (4)	J. Heckmann	116	102,200
1946	Armed (5)	D. Dodson	128	45,700					

WOOD MEMORIAL

Jamaica; 3-year-olds; 1 1/16 miles

Run as Wood Stakes prior to 1927. Distance 1 mile and 70 yards from 1925 to 1939, inclusive. Run as Wood Memorial Stakes from 1927 to 1941, inclusive. Run in two divisions in 1944, 1945, and 1947.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1925	Backbone	I. Parke	110	$ 7,600	1942	Requested	W. D. Wright	120	$22,900
1926	Pompey	B. Breuning	120	8,700	1943	Count Fleet	J. Longden	126	20,150
1927	Saxon	G. Ellis	117	9,050	1944	Stir Up	E. Arcaro	126	19,625
1928	Distraction	D. McAuliffe	120	11,300	1944	Lucky Draw	J. Longden	126	20,115
1929	Essare	M. Garner	110	11,000	1945	Jeep	A. Kirkland	126	18,945
1930	Gallant Fox	E. Sande	120	10,150	1945	Hoop Jr.	E. Arcaro	126	18,945
1931	Twenty Grand	C. Kurtsinger	120	10,200	1946	Assault	W. Mehrtens	126	22,600
1932	Universe	L. McAtee	120	10,400	1947	Phalanx	E. Arcaro	126	31,325
1933	Mr. Khayyam	P. Walls	122	3,760	1947	I Will	E. Arcaro	126	31,625
1934	High Quest	D. Bellizzi	120	3,990	1948	My Request	D. Dodson	126	34,600
1935	Today	R. Workman	112	11,350	1949	Olympia	E. Arcaro	126	31,850
1936	Teufel	E. Litzenberger	112	10,775	1950	Hill Prince	E. Arcaro	126	34,500
1937	Melodist	J. Longden	120	19,105	1951	Repetoire	P. McLean	126	35,250
1938	Fighting Fox	J. Stout	120	17,450	1952	Master Fiddle	D. Gorman	126	45,200
1939	Johnstown	J. Stout	120	17,675	1953	Native Dancer	E. Guerin	126	87,000
1940	Dit	L. Haas	120	19,225	1954	Correlation	W. Shoemaker	126	86,000
1941	Market Wise	D. Meade	120	16,650					

WORLD RECORDS

Distance	Horse, age, weight, track and location	Date	Time
¼	Big Racket, 4, 111, Hipodromo de las Americas, Mexico City, Mexico	February 5, 1945	:20⅘
2½ f.	Pichirilo, 2, 117, Hipodromo de las Americas, Mexico City, Mexico	March 5, 1954	:26⅗
⅜	Atoka, 6, 105, Butte, Mont.	September 7, 1906	:33½
3½ f.	Joe Blair, 5, 115, Juarez, Mexico	February 5, 1916	:39
½	Manzanero, 6, 121, Hipodromo de las Americas, Mexico City, Mexico	February 5, 1954	:45⅕
4½ f.	Saggy, 2, 117, Havre de Grace, Md.	April 23, 1947	:51⅘
⅝	Encantadora, 3, 115, Centennial Park, Littleton, Colo.	August 9, 1951	:57
	Miss Todd, 2, 119, Hollywood Park, Inglewood, Calif.	June 30, 1955	:57
5½ f.	Nance's Ace, 3, 112, Tropical Park, Coral Gables, Fla.	December 27, 1944	1:03⅕
	Bold Bazooka, 2, 118, Hollywood Park, Inglewood, Calif.	July 14, 1955	1:03⅕
5¾ f.	Fighting Fox, 4, 126, Empire City, Yonkers, N. Y.	July 8, 1939	1:07⅗
	Doublrab, 4, 130, Empire City, Yonkers, N. Y.	July 18, 1942	1:07⅗
¾	*Gelding by Blink-Broken Tendril, 3, 123, Brighton, England	August 6, 1929	1:06⅕
	Bolero, 4, 122, Golden Gate Fields, Albany, Calif.	May 27, 1950	1:08⅕
6½ f.	Snark, 4, 109, Hialeah Park, Hialeah, Fla.	February 9, 1937	1:15⅘
	Simmy, 3, 119, Gulfstream Park, Hallandale, Fla.	March 19, 1955	1:15⅘
⅞	El Drag, 4, 115, Hollywood Park, Inglewood, Calif.	May 21, 1955	1:20
1	Citation, 5, 128, Golden Gate Fields, Albany, Calif.	June 3, 1950	1:33⅘
1 mi. 70 yd.	South Dakota, 3, 122, River Downs, Cincinnati, Ohio	August 4, 1945	1:40
1 1/16	Swaps, 3, 115, Hollywood Park, Inglewood, Calif.	June 11, 1955	1:40⅖
1⅛	Noor, 5, 123, Golden Gate Fields, Albany, Calif.	June 17, 1950	1:46⅘
	Alidon, 4, 116, Hollywood Park, Inglewood, Calif.	July 4, 1955	1:46⅘
1 3/16	Fleet Bird, 4, 123, Golden Gate Fields, Albany, Calif.	October 24, 1953	1:52⅘
1¼	Noor, 5, 127, Golden Gate Fields, Albany, Calif.	June 24, 1950	1:58⅕
1⅜	Man o' War, 3, 126, Belmont Park, Elmont, N. Y.	June 12, 1920	2:14⅕
1½	The Bastard, 3, 124, Newmarket, England	October 18, 1929	2:23
1⅝	Ace Admiral, 4, 122, Santa Anita Park, Arcadia, Calif.	July 23, 1949	2:39⅘
1 mi. 5½ f.	Distribute, 9, 109, River Downs, Cincinnati, Ohio	September 7, 1940	2:51⅗
1¾	Noor, 5, 117, Santa Anita Park, Arcadia, Calif.	March 4, 1950	2:52⅘
1⅞	Pharawell, 5, 119, Gulfstream Park, Hallandale, Fla.	April 8, 1947	3:13⅘
2	Polazel, 3, 142, Salisbury, England	July 8, 1924	3:15
2 mi. 40 yd.	Winning Mark, 4, 107, Thistle Down Park, Cleveland, Ohio	July 20, 1940	3:29⅘
2 mi. 70 yd.	Filisteo, 7, 116, Pimlico, Baltimore, Md.	October 30, 1941	3:30⅘
2 1/16	Bookworm, 4, 120, Randall Park, North Randall, Ohio	September 4, 1954	3:30
2⅛	Centurion, 5, 119, Newbury, England	September 29, 1923	3:35
2 3/16	Santiago, 5, 112, Narragansett Park, Pawtucket, R. I.	September 27, 1941	3:51⅕
2¼	Dakota, 4, 116, Lingfield, England	May 27, 1927	3:37⅘
2⅜	Wiki Jack, 4, 97, Tijuana, Mexico	February 8, 1925	4:15
2½	Miss Grillo, 6, 118, Pimlico, Baltimore, Md.	November 12, 1948	4:14⅗
2⅝	†Worthman, 5, 101, Tijuana, Mexico	February 22, 1925	4:51⅗
2¾	Shot Put, 4, 126, Washington Park, Homewood, Ill.	August 14, 1940	4:48⅘
2⅞	‡Bosh, 5, 100, Tijuana, Mexico	March 8, 1925	5:23

* 3/4 mile course at Brighton is started from a hill and is down grade to within one-third of a mile of the finish.
† Track heavy. ‡ Track sloppy.

Straight Course

¼	Bob Wade, 4, 122, Butte, Mont.	August 20, 1890	:21⅕
⅜	King Rhymer, 2, 118, Santa Anita Park, Arcadia, Calif.	February 27, 1947	:32
½	Gloaming, 6, 127, Trentham, Wellington, New Zealand	January 12, 1921	:45
4½ f.	The Pimpernel, 2, 118, Belmont Park, Elmont, N. Y.	May 17, 1951	:49⅘
	Reneged, 2, 118, Belmont Park, Elmont, N. Y.	June 7, 1955	:49⅘
⅝	Devineress, 3, 103, Epsom Downs, Epsom, England	June 2, 1933	:54⅘
5½ f.	Delegate, 7, 113, Belmont Park, Elmont, N. Y.	October 10, 1951	1:01⅘
¾	Vestment, 2, 115, Belmont Park, Elmont, N. Y.	October 15, 1954	1:07⅘
6½ f.	Porter's Mite, 2, 119, Belmont Park, Elmont, N. Y.	September 17, 1938	1:14⅗
	Native Dancer, 2, 122, Belmont Park, Elmont, N. Y	September 27, 1952	1:14⅗
*Abt⅞	High Strung, 2, 122, Belmont Park, Elmont, N. Y.	September 15, 1928	1:19
⅞	First Edition, 4, 126, Hurst Park, Hampton Court England	May 25, 1926	1:20
1	Mopsus, 3, 105, Brighton, England	June 22, 1939	1:32
1¼	Banquet, 3, 108, Monmouth Park, New Jersey	July 17, 1890	2:03⅘

* 165 feet short of 7/8 mile.

New York Wagering, Attendance Records

Type of record	Amount	Track	Date
Mutuel handle (8 races)	$5,016,745	Belmont	September 22, 194
Mutuel handle (7 races)	4,330,471	Jamaica*	November 3, 194
Mutuel handle (1 race)	763,127	Belmont	September 27, 194
Daily double	251,682	Jamaica	October 30, 194
Attendance	64,670	Jamaica	May 30, 194

* Empire City meeting.

Man o' War's Record

(Bred by August Belmont. Owned by Glen Riddle Farm.)

1919

Date	Track	Race	Dist.	Wt.	Fin.	Time	Odds	Earnings
June 6	Belmont Park	Purse	5/8 st	115	1	:59	3–5	$ 500
June 9	Belmont Park	Keene Memorial Stakes	5½f st	115	1	1:05⅘	7–10	4,200
June 21	Jamaica	Youthful Stakes	5½f	120	1	1:06⅘	1–2	3,850
June 23	Aqueduct	Hudson Stakes	5/8	130	1	1:01⅘	1–10	2,825
July 5	Aqueduct	Tremont Stakes	¾	130	1	1:13	1–10	4,800
Aug. 2	Saratoga	United States Hotel Stakes	¾	130	1	1:12⅖	9–10	7,600
Aug. 13	Saratoga	Sanford Memorial Stakes	¾	130	2	1:11⅕	11–20	700
Aug. 23	Saratoga	Grand Union Hotel Stakes	¾	130	1	1:12	11–20	7,600
Aug. 30	Saratoga	Hopeful Stakes	¾	130	1	1:13	9–20	24,600
Sept. 13	Belmont Park	Belmont Futurity	¾ st	127	1	1:11⅘	1–2	26,650
						Total		$83,325

1920

Date	Track	Race	Dist.	Wt.	Fin.	Time	Odds	Earnings
May 18	Pimlico	Preakness Stakes	1⅛	126	1	1:51⅘	4–5	$23,000
May 29	Belmont Park	Withers Stakes	1	118	1	1:35⅘	1–7	4,825
June 12	Belmont Park	Belmont Stakes	1½	126	1	2:14⅕	1–25	7,950
June 22	Jamaica	Stuyvesant Handicap	1	135	1	1:41⅘	1–100	3,850
July 10	Aqueduct	Dwyer Stakes	1⅛	126	1	1:49⅕	1–5	4,850
Aug. 7	Saratoga	Miller Stakes	1⅛e	131	1	1:56⅘	1–30	4,700
Aug. 21	Saratoga	Travers Stakes	1¼	129	1	2:01⅘	2–9	9,275
Sept. 4	Belmont Park	Lawrence Realization Stakes	1⅛	126	1	2:40⅘	1–100	15,040
Sept. 11	Belmont Park	Jockey Club Stakes	1½	118	1	2:28⅘	1–100	5,850
Sept. 18	Havre de Grace	Potomac Handicap	1⅛e	138	1	1:44⅘	15–100	6,800
Oct. 12	Kenilworth Park	Kenilworth Park Gold Cup	1¼	120	1	2:03	1–20	80,000
						Total		$166,140

RECAPITULATION

Year	Age	Sts.	1st	2d	3d	Unp.	Earnings
1919	2	10	9	1	0	0	$ 83,325
1920	3	11	11	0	0	0	166,140
Totals		21	20	1	0	0	$249,465

THOROUGHBRED RACING ASSOCIATIONS OF THE UNITED STATES, INC.

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Ace Marine Takes Queen's Plate

Larkin Maloney's Ace Marine, ridden by George Walker, won the ninety-sixth running of the Queen's Plate at Woodbine Park, Toronto, on June 11, 1955. Second, three lengths behind the victor in the mile-and-an-eighth event, was Mrs. R. Y. Graul's Baffin Bay. Ace Marine was timed in 1:52⅖ and earned $25,270. The Queen's Plate is the oldest stakes race in North America.

LEADING JOCKEYS SINCE 1935

Year	Jockey	Mounts	Winners	Unplaced	Pct.
1935	C. Stevenson	1,099	206	578	.19
1936	B. James	1,106	245	505	.22
1937	J. Adams	1,265	260	642	.21
1938	J. Longden	1,150	236	575	.21
1939	D. Meade	1,284	255	628	.20
1940	E. Dew	1,377	287	709	.21
1941	D. Meade	1,164	210	611	.18
1942	J. Adams	1,120	245	540	.22
1943	J. Adams	1,069	228	511	.21
1944	T. Atkinson	1,539	287	808	.19
1945	J. D. Jessop	1,085	290	445	.27
1946	T. Atkinson	1,377	233	758	.17
1947	J. Longden	1,327	316	566	.24
1948	J. Longden	1,197	319	494	.27
1949	G. Glisson	1,347	270	679	.20
1950	W. Shoemaker	1,640	388	756	.24
	J. Culmone	1,676	388	787	.23
1951	C. Burr	1,162	310	585	.24
1952	A. DeSpirito	1,482	390	633	.26
1953	W. Shoemaker	1,683	485	686	.29
1954	W. Shoemaker	1,251	380	508	.30

LEADING TRAINERS SINCE 1935

(Winners saddled)

Year	Name	Winners	Earnings
1935	H. Jacobs	114	$95,155
1936	H. Jacobs	177	155,789
1937	H. Jacobs	134	142,474
1938	H. Jacobs	109	116,609
1939	H. Jacobs	106	100,907
1940	D. Womeldorff	108	112,137
1941	H. Jacobs	123	165,964
1942	H. Jacobs	133	186,371
1943	H. Jacobs	128	210,775
1944	H. Jacobs	117	306,821
1945	S. Lipiec	127	238,361
1946	W. Molter	122	329,725
1947	W. Molter	155	833,970
1948	W. Molter	184	1,015,547
1949	W. Molter	129	696,184
	W. H. Bishop	129	236,131
1950	R. H. McDaniel	156	441,590
1951	R. H. McDaniel	164	539,204
1952	R. H. McDaniel	168	573,837
1953	R. H. McDaniel	211	751,957
1954	R. H. McDaniel	206	834,390

LEADING MONEY-WINNING OWNERS

Year	Name	Amount
1935	A. G. Vanderbilt	$303,605
1936	Milky Way Farm Stable	206,450
1937	Mrs. Charles S. Howard	214,559
1938	H. Maxwell Howard	226,495
1939	Belair Stud	284,250
1940	Charles S. Howard	334,120
1941	Calumet Farm	475,091
1942	Greentree Stable	414,432
1943	Calumet Farm	267,915
1944	Calumet Farm	601,660
1945	Maine Chance Farm	589,170
1946	Calumet Farm	564,095
1947	Calumet Farm	1,402,436
1948	Calumet Farm	1,269,710
1949	Calumet Farm	1,128,942
1950	Brookmeade Stable	651,399
1951	Greentree Stable	637,242
1952	Calumet Farm	1,283,197
1953	A. G. Vanderbilt	987,306
1954	King Ranch	837,615

TOP MONEY-WINNING HORSES

Year	Horse and age	Starts	1st	Amount
1935	Omaha (3)	9	6	$142,255
1936	Granville (3)	11	7	110,295
1937	Seabiscuit (4)	15	11	168,580
1938	Stagehand (3)	15	8	189,710
1939	Challedon (3)	15	9	184,535
1940	Bimelech (3)	7	4	110,005
1941	Whirlaway (3)	20	13	272,386
1942	Shut Out (3)	12	8	238,872
1943	Count Fleet (3)	6	6	174,055
1944	Pavot (2)	8	8	179,040
1945	Busher (3)	13	10	273,735
1946	Assault (3)	15	8	424,195
1947	Armed (6)	17	11	376,325
1948	Citation (3)	20	19	709,470
1949	Ponder (3)	21	9	321,825
1950	Noor (5)	12	7	346,940
1951	Counterpoint (3)	15	7	250,525
1952	Crafty Admiral (4)	16	9	277,225
1953	Native Dancer (3)	10	9	513,425
1954	Determine (3)	15	10	328,700

Facts on Citation

Record by Years

Year	Age	Sts.	1st	2d	3d	Unp.	Earnings
1947	2	9	8	1	0	0	$155,680
1948	3	20	19	1	0	0	709,470
1949	4	0	0	0	0	0	...
1950	5	9	2	7	0	0	73,480
1951	6	7	3	1	2	1	147,130
Totals		45	32	10	2	1	$1,085,760

Stake Victories

1947

Date	Event	Dist.	Wt.	Time	Earnings
July 30	Elementary Stakes	¼	122	1:10⅘	$17,300
Oct. 4	Belmont Futurity	6½	122	1:15⅘	78,430
Nov. 8	Pimlico Futurity	1 1/16	119	1:48⅘	36,675

1948

Feb. 11	Seminole Handicap	⅞	112	1:23	8,525
Feb. 18	Everglades Handicap	1⅛	126	1:49	7,200
Feb. 28	Flamingo Stakes	1⅛	126	1:48⅘	43,500
Apr. 17	Chesapeake Stakes	1 1/16	122	1:45⅘	19,750
Apr. 27	Derby Trial	1	118	1:37⅘	8,525
May 1	Kentucky Derby	1¼	126	2:05⅗	83,400
May 15	Preakness Stakes	1 3/16	126	2:02⅘	91,870
May 29	Jersey Stakes	1¼	126	2:03	43,300
June 12	Belmont Stakes	1½	126	2:28⅘	77,700
July 5	Stars and Stripes	1¼	119	1:49⅘	38,000
Aug. 28	American Derby	1¼	126	2:01⅘	66,450
Sept. 29	Sysonby Mile	1	119	1:36	20,200
Oct. 2	Jockey Club Gold Cup	2	117	3:21⅘	72,700
Oct. 16	Empire City Gold Cup	1¼	119	2:42⅘	75,600
Oct. 29	*Pimlico Special	1 3/16	120	1:59⅘	10,000
Dec. 11	Tanforan Handicap	1¼	123	2:02⅘	31,800

* Walkover.

1950

June 3	Golden Gate Mile	1	128	1:33⅘	14,55

1951

July 4	American Handicap	1¼	123	1:48⅘	33,00
July 14	Hollywood Gold Cup	1¼	120	2:01	100 00

WORLD ALL-TACKLE FISHING RECORDS

Caught with Rod and Reel in Salt Water

Source: International Game Fish Association, Francesca LaMonte, Secretary.

Species	Lb., oz.	Length	Girth	Where caught	Year	Angler
Albacore	66—4	....	....	Catalina, California	1912	Frank Kelly
Amberjack	119—8	63½"	46½"	Rio de Janeiro, Brazil	1952	C. de Mello Cunha
Barracuda	103—4	66"	31¼"	West End, Bahamas	1932	C. E. Benet
Bass, Calif. White Sea	83—12	65½"	34"	Baja California, Mex.	1953	L. C. Baumgardner
Bass, Channel	83	52"	29"	Cape Charles, Va.	1949	Zack Waters, Jr.
Bass, Giant Black Sea	483	87"	73"	Coronado Is., Calif.	1951	R. E. De Groff
Bass, Sea	8	22"	19"	Nantucket Sound, Mass.	1951	H. R. Rider
Bass, Giant Sea	551	100"	....	Galveston Bay, Texas	1937	G. Pangarakis
Bass, Striped	73	60"	30½"	Vineyard Sound, Mass.	1913	C. B. Church
Blackfish (Tautog)	15—14	27½"	19½"	Seabright, N. J.	1951	Caleb Campbell
Bluefish	24—3	41"	22"	San Miguel, Azores	1953	M. da Silva Veloso
Bonefish	18—2	41½"	17⅝"	Kauai, T. H.	1954	Wm. Badua
Bonito, Oceanic	39—15	39"	28"	Walker Cay, Bahamas	1952	F. Drowley
Cobia	102	70"	34"	Cape Charles, Va.	1938	J. E. Stansbury
Cod	57—8	56"	....	Ambrose Lightship, N. Y.	1949	J. Rzeszewicz
Dolphin	75—8	50"	....	Mafia Channel, E. Africa	1950	A. Conan Doyle
Drum, Black	90	60"	39"	Wildwood, N. J.	1955	J. W. Douglass
Flounder, Summer	20	37"	32"	Oak Beach, N. Y.	1948	F. H. Kessel
Kingfish (King Mackerel)	76—8	63"	31"	Bimini, Bahamas	1952	R. E. Maytag
Marlin, Blue	742	154½"	68"	Bimini, Bahamas	1949	Aksel Wichfield
Marlin, Pacific Black	1560	174"	81"	Cabo Blanco, Peru	1953	A. C. Glassell, Jr.
Marlin, Silver	755	163¾"	65¼"	Pinas Bay, Panama	1953	R. Dugan, Jr.
Marlin, Striped	692	161"	....	Balboa, California	1931	A. Hamann
Marlin, White	161	104"	33"	Miami, Florida	1938	L. F. Hooper
Permit	42—4	43"	33½"	Boca Grande, Fla.	1953	R. H. Martin
Pollack	32—4	44"	26¾"	Belmar, N. J.	1953	J. Wolf
Roosterfish	100	54"	32"	Cabo Blanco, Peru	1954	M. Barrenechea
Sailfish, Atlantic	123	44"	32¼"	Walker Cay, Bahamas	1950	H. Teetor
Sawfish	736	175"	....	Galveston, Texas	1938	Gus Pangarakis
Shark, Mako	1000	144"	....	Mayor Island, N. Z.	1943	B. D. H. Ross
Shark, Porbeagle	260	48"	68¼"	Durban, S. Africa	1949	J. L. Daniel
Shark, Thresher	922	....	....	Bay of Islands, N. Z.	1937	W. W. Dowding
Shark, Tiger	1382	166"	93"	Sydney Heads, Australia	1939	Lyle Bagnard
Shark, White	2536	201"	111"	Denial Bay, Australia	1955	A. Dean
Snook (Robalo)	50—8	55"	....	Gatun Spillway, Canal Zone	1944	J. W. Anderson
Swordfish	1182	179¼"	78"	Iquique, Chile	1953	L. E. Marron
Tarpon	247	89½"	....	Panuco River, Mexico	1938	H. W. Sedgwick
Tuna, Allison	265	73"	53"	Makua, T. H.	1937	J. W Harvey
Tuna, Big-eyed	368	101"	63½"	Cabo Blanco, Peru	1953	H. L. Woodward
Tuna, Bluefin	977	116"	94½"	St. Ann Bay, Nova Scotia	1950	D. McI. Hodgson
Wahoo	136	76½"	34½"	E. Boynton Inlet, Fla.	1955	R. J. Geyer
Weakfish	17—8	46"	19"	Mullica River, N. J.	1944	A. Weisbecker, Jr.
Weakfish, Spotted	15—3	34½"	20½"	Fort Pierce, Fla.	1949	C. W. Hubbard
Yellowtail	105—12½	65"	40"	Bahia de Topolobampo, Mexico	1955	M. A. Yant

Caught with Rod and Reel in Fresh Water

Source: Field & Stream, 383 Madison Avenue, New York 17, N. Y.

Black Bass, Largemouth	22—4	32½"	28½"	Montgomery Lake, Ga.	1932	George W. Perry
Black Bass, Smallmouth	10—8	22½"	21¼"	Wheeler Dam, Ala.	1950	Owen F. Smith
Bluegill (Sunfish)	4—12	15"	18¼"	Ketona Lake, Ala.	1950	T. S. Hudson
Carp	55—5	42"	31"	Clearwater Lake, Minn.	1952	Frank J. Ledwein
Catfish, Channel	55	50"	27"	James River, S. D.	1949	Roy A. Groves
Muskellunge	69—11	63½"	31¼"	Chippewa Flowage, Wis.	1949	Louis Spray
Perch, White	4—12	19½"	13"	Messalonskee Lake, Maine	1949	Mrs. Earl Small
Perch, Yellow	4—3½	....	....	Bordentown, New Jersey	1865	Dr. C. C. Abbot
Pickerel, Eastern chain	9	30"	15"	Green Pond, N. J.	1948	Russell Kimble
Pike, Northern	46—2	52½"	25"	Sacandaga Reservoir, N. Y.	1940	Peter Dubuc
Pike, Walleyed	22—4	36¼"	21"	Fort Erie, Ontario	1943	Patrick E. Noon
Salmon, Atlantic	79—2	....	....	Tanalev, Norway	1928	Henrik Henriksen
Salmon, Chinook	83	....	....	Umpqua River, Oregon	1910	F. R. Steel
Salmon, Landlocked	22—8	36"	....	Sebago Lake, Maine	1907	Edward Blakely
Salmon, Silver	31	....	....	Cowichan Bay, B. C.	1947	Mrs. Lee Hallberg
Trout, Brook	14—8	....	....	Nipigon River, Ontario	1916	Dr. W. J. Cook
Trout, Brown	39—8	....	....	Loch Awe, Scotland	1866	W. Muir
Trout, Dolly Varden	32	40½"	29¾"	Pend Oreille Lake, Idaho	1949	N. L. Higgins
Trout, Lake	63—2	51½"	32¾"	Lake Superior	1952	Hubert Hammers
Trout, Rainbow or Steelhead	37	40½"	28"	Pend Oreille Lake, Idaho	1947	Wes Hamlet

HARNESS RACING

OLIVER WENDELL HOLMES, the famous Autocrat of the Breakfast Table, wrote that the running horse was a gambling toy but the trotting horse was useful and, furthermore, "horse-racing is not a republican institution; horse-trotting is." Oliver Wendell Holmes was a born and bred New Englander and New England was the nursery of the harness racing sport in America. Pacers and trotters were matters of local pride and prejudice in Colonial New England and, shortly after the Revolution, the Messenger and Justin Morgan strains produced many winners in harness racing "matches" along the turnpikes of New York, Connecticut, Rhode Island, Massachusetts, Vermont and New Hampshire.

There was English thoroughbred blood in Messenger and Justin Morgan and, many years later, it was blended in Rysdyk's Hambletonian, foaled in 1849. Hambletonian was not particularly fast under harness but his descendants have had almost a monopoly of prizes, titles and records in the harness racing game. Hambletonian was purchased as a foal with its dam for a total of $124 by William Rysdyk of Goshen, N. Y. and made a modest fortune for the purchaser.

Trotters and pacers often were raced under saddle in the old days and, in fact, the custom still survives in some places in Europe. Dexter, the great trotter that lowered the mile record from 2:19¾ to 2:17¼ in 1867, was said to handle just as well under saddle as when pulling a sulky. But as sulkies were lightened in weight and improved in design, trotting under saddle became less common and finally faded out in this country.

Hambletonian Winners

Goshen, N. Y.

(Three-year-old trotters—1 mile)

Run at Syracuse, N. Y., in 1926 and 1928; run at Lexington, Ky., in 1927 and 1929; run at Empire City Race Track, Yonkers, N. Y., in 1943.

Year	Winner	Driver	Best time	Value
1926	Guy McKinney	Nat Ray	2.04 3/4	$73,451.32
1927	Iosola's Worthy	Marvin Childs	2.03 3/4	54,694.44
1928	Spencer	W. H. Leese	2.02 1/2	66,226.25
1929	Walter Dear	W. R. Cox	2.02 3/4	60,309.60
1930	Hanover's Bertha	Tom Berry	2.03	56,859.84
1931	Calumet Butler	R. McMahon	2.03 1/4	50,921.39
1932	The Marchioness	W. Caton	2.01 1/4	49,489.26
1933	Mary Reynolds	Ben White	2.03 3/4	40,459.88
1934	Lord Jim	H. M. Parshall	2.02 3/4	25,845.44
1935	Greyhound	Sep Palin	2.02 1/4	33,321.00
1936	Rosalind	Ben White	2.01 3/4	35,643.83
1937	Shirley Hanover	H. Thomas	2.01 1/2	37,912.58
1938	McLin Hanover	H. Thomas	2.02 1/4	37,962.37
1939	Peter Astra	H. M. Parshall	2.04 1/4	40,502.46
1940	Spencer Scott	F. Egan	2.02	43,685.45
1941	Bill Gallon	Lee Smith	2.05	38,729.86
1942	The Ambassador	Ben White	2.04	38,954.38
1943	Volo Song	Ben White	2.02 1/2	42,298.03
1944	Yankee Maid	H. Thomas	2.04	33,577.12
1945	Titan Hanover	H. Pownall	2.04	50,196.96
1946	Chestertown	Tom Berry	2.02 1/2	50,995.57
1947	Hoot Mon	Sep Palin	2.00	46,267.93
1948	Demon Hanover	H. R. Hoyt	2.02	59,941.18
1949	Miss Tilly	Fred Egan	2.01 2/5	69,791.08
1950	Lusty Song	Del Miller	2.02	75,209.12
1951	Mainliner	Guy Crippen	2.02 3/5	95,263.93
1952	Sharp Note	Bi Shively	2.02 2/5	87,637.55
1953	Helicopter	Harry Harvey	2.01 3/5	117,117.98
1954	Newport Dream	Adelbert Cameron	2.02 4/5	106,830.68

SUMMARY OF 1955 HAMBLETONIAN

Horse and driver	Heats 1st	Heats 2d
aScott Frost (Joe O'Brien)	1	1
Galophone (Billy Haughton)	3	2
Leopold Hanover (John Simpson)	2	3
aButch Hanover (Jack Richardson)	4	4
bWay Ahead (Del Miller)	5	9
Childs Hanover (Frank Ervin)	10	5
bIndian Raider (Jimmy Arthur)	6	7
Colbymite (Ralph Baldwin)	9	6
Flemington (Dana Cameron)	7	8
Arville Hanover (Roger Brown)	8	10
aHome Free (Clint Hodgins)	11	11

aCamp stable entry. bDel Miller stable entry.
Times—2:01 3/5, 2:00 3/5. Winner-bay colt by Hoot Mon.

Purse distribution—Scott Frost, $51,075.63; Galophone, $14,897.06; Leopold Hanover, $14,897.06; Butch Hanover, $4,256.30. Original nominators of the first four horses split $1,737.27. Total purse—$86,863.32.

WORLD HARNESS RACING RECORDS

(This compilation recognizes as record-holders those horses which have made the fastest time at their gait, age, and hitch, either against time or in a race at one mile.)

Trotting on Mile Track

	Time	Driver	Date	Where made
All-age—Greyhound	1.55¼	S. F. Palin	Sept. 29, 1938	Lexington, Ky.
Yearling—Airdale	2.15¾	H. C. Moody	Oct. 2, 1912	Lexington, Ky.
2-year-old—Titan Hanover	2.00	Harry Pownall	Oct. 4, 1944	Lexington, Ky.
2-year-old—Scott Frost	2.00(r)	Joseph O'Brien	Oct. 5, 1954	Lexington, Ky.
3-year-old—Titan Hanover	1.58	Harry Pownall	Sept. 7, 1945	DuQuoin, Ill.
4-year-old—Greyhound	1.57¼ (r)	S. F. Palin	Aug. 21, 1936	Springfield, Ill.
4-year-old—Spencer Scott	1.57¼	Fred Egan	Sept. 24, 1941	Lexington, Ky.
Lady driver—Dean Hanover	1.58½	Alma Sheppard	Sept. 24, 1937	Lexington, Ky.
To Wagon—Lou Dillon	2.00	C. K. G. Billings	Aug. 24, 1903	Readville, Mass.
To Wagon—Uhlan	2.00	C. K. G. Billings	Aug. 7, 1911	North Randall, Ohio
Team to Pole—Greyhound and Rosalind	1.58¼	S. F. Palin	Sept. 5, 1939	Indianapolis, Ind.
Team, Three Abreast—Calumet Dubuque, Mac Aubrey, Hollyrood Boris	2.10¼	T. F. Walsh	Aug. 14, 1937	Goshen, N. Y.
Team, Tandem—John R. McElwyn and Hollyrood Harrier	2.19¼	T. F. Walsh	Sept. 7, 1936	Rutland, Vt.
Four-in-Hand—Damiana, Beinut, Maud V., Nutspra	2.30	Not recorded	July 4, 1896	Chicago, Ill.
Under Saddle—Greyhound	2.01¼	Mrs. F. D. Johnson	Sept. 27, 1940	Lexington, Ky.
With Running Mate—Uhlan	1.54½	Chas. Tanner	Oct. 9, 1913	Lexington, Ky.

(r) Record made in race.

Trotting on Half-mile Track

	Time	Driver	Date	Where made
All-age—Greyhound	1.59¼	S. F. Palin	July 16, 1937	Goshen, N. Y.
Yearling—U. Forbes	2.21½	H. C. Moody	Sept. 18, 1913	Louisville, Ky.
2-year-old—Titan Hanover	2.03½ (r)	Harry Pownall	Sept. 19, 1944	Delaware, Ohio
3-year-old—Titan Hanover	2.01¾	Harry Pownall	Sept. 18, 1945	Delaware, Ohio
4-year-old—Star's Pride	2.00⅝ (r)	Harry Pownall	July 13, 1951	Saratoga Spgs, N. Y.
To Wagon—Sweet Marie	2.08½	W. J. Andrews	Sept. 21, 1907	Allentown, Pa.
Team to Pole—Calumet Dubuque and Hollyrood Boris	2.06¾	T. F. Walsh	Aug. 19, 1937	Skowhegan, Me.
Team, Three Abreast—David Thornton, Hollyrood Boris, Capital Stock	2.22½	T. F. Walsh	July 2, 1937	Gorham, Maine
Under Saddle—Hollyrood Boris	2.09	Helen James	Sept. 17, 1936	Brockton, Mass.

(r) Record made in race.

Pacing on Mile Track

	Time	Driver	Date	Where made
All-age—Billy Direct	1.55	Vic Fleming	Sept. 28, 1938	Lexington, Ky.
All-age—Adios Harry	1.55 (r)	Luther Lyons	July 16, 1955	Vernon, N. Y.
Yearling—Royal Lady 2nd	2.14¾	O. M. Powell	Oct. 20, 1939	Indianapolis, Ind.
2-year-Old—Adios Boy	1.58⅗	Howard Camden	Oct. 3, 1953	Lexington, Ky.
3-year-old—Solicitor	1.57⅗	Delvin Miller	Oct. 1, 1951	Lexington, Ky.
3-year-old—Tar Heel	1.57⅗	Delvin Miller	Oct. 2, 1951	Lexington, Ky.
4-year-old—Billy Direct	1.55	Vic Fleming	Sept. 28, 1938	Lexington, Ky.
4-year-old—Adios Harry	1.55 (r)	Luther Lyons	July 16, 1955	Vernon, N. Y.
Lady Driver—Highland Scott	1.59¼	Mrs. E. R. Harriman	Aug. 22, 1929	Goshen, N. Y.
To Wagon—Dan Patch	1.57¼ (w)	M. E. McHenry	Oct. 27, 1903	Memphis, Tenn.
Team to Pole—Minor Heir and George Gano	2.02	E. J. McCarr	Oct. 1, 1912	Columbus, Ohio
Under Saddle—George Gano	2.10¾	M. Anderson	Sept. 2, 1915	Madison, Wis.
With Running Mate—Flying Jib	1.58¼	A. McDowell	Oct. 4, 1894	Chillicothe, Ohio

(w) With windshield.

Pacing on Half-mile Track

	Time	Driver	Date	Where made
All-age—Hi-Lo's Forbes	1.58⅗ (r)	Henry Clukey	June 6, 1953	Westbury, N. Y.
Yearling—Lady Patch	2.13¼	O. M. Powell	1924	•
2-year-old—Belle Acton	2.02⅖(r)	Stanley Dancer	Oct. 10, 1955	Yonkers, N. Y.
3-year-old—Tar Heel	2.00 (r)	Adelbert Cameron	Sept. 20, 1951	Delaware, Ohio
4-year-old—Adios Harry	1.59⅖ (r)	Luther Lyons	June 8, 1955	Westbury, N. Y.
To Wagon—Dan Patch	2.05 (w)	H. C. Hersey	Sept. 21, 1905	Allentown, Pa.
Team to Pole—Billy Direct and The Widower	2.04¼	Chas. Fleming	Oct. 12, 1939	Altamont, N. Y.
Under Saddle—Zombro Hanover	2.06¾	J. Weipert	Sept. 21, 1935	Newark, N. J.

• Data unavailable. (r) Record made in race. (w) With windshield.

MOTORBOATING

SINCE the source of power—the internal combustion engine—is the same in the motorboat as it is in the automobile, the history of motorboat racing parallels that of auto racing. There was a sporting risk in driving the early power boats. As soon as they began to show a degree of dependability, there came the informal rivalries of the rivers and lakes. These led to the formal contests of speed and endurance over marked courses under the control of the American Power Boat Association. The races were severe tests of all parts of power boats and what was learned in the annual Gold Cup competition, which started in 1904, caused a great improvement in the designing of engines and hulls. The development of the outboard motor opened up another branch of power boat competition of wide popularity.

Motorboating Statistics

Source: American Power Boat Association and *Motor Boating* Magazine.

GOLD CUP WINNERS

Beginning with 1922 the race for the American Power Boat Association Gold Cup was open only to displacement boats of over 25 feet in length and powered with motors of not more than 625 inches piston displacement. In 1946 the rules were liberalized to encourage the entry of smaller, less expensive craft. Boats now are required to be between 10 and 40 feet in length, with horsepower unlimited.

Year	Sponsor	Winner and owner	Time of best heat	Best heat speed m.p.h.
1904	Columbia Yacht Club	STANDARD, C. C. Riotte	1:33:30	23.6
1904	Columbia Y. C.	VINGT-ET-UN II, W. Sharpe Kilmer	1:27:03	25.3
1905	Chippewa Bay Y. C.	CHIP, J. Wainwright	1:52:38	15.9
1906	Chippewa Bay Y. C.	CHIP II, J. Wainwright	1:27:01	20.6
1907	Chippewa Bay Y. C.	CHIP II, J. Wainwright	1:26:43	20.8
1908	Chippewa Bay Y. C.	DIXIE II, E. J. Schroeder	0:58:13	30.9
1909	Thousand Islands Y. C.	DIXIE II, E. J. Schroeder	0:58:25	32.9
1910	Thousand Islands Y. C.	DIXIE III, F. K. Burnham	0:57:14	33.6
1911	Frontenac Y. C.	MIT II, J. H. Hayden	0:53:31	36.1
1912	Thousand Islands Y. C.	P. D. Q. II, Alfred G. Miles	0:44:59	44.5
1913	Thousand Islands Y. C.	ANKLE DEEP, C. S. Mankowski	0:41:03	50.49
1914	Lake George Reg. Assn.	BABY SPEED DEMON II, Paula Blackton	0:42:41	48.5
1915	L. I. Sound P. B. A.	MISS DETROIT, Miss Detroit P. B. A.	0:41:21	49.7
1916	Miss Detroit P. B. A.	MISS MINNEAPOLIS, Miss Minneapolis B. A.	0:52:12	36.8
1917	Miss Minneapolis B. A.	MISS DETROIT II, Garfield A. Wood	0:36:47	56.5
1918	Detroit Y. C.	MISS DETROIT III, Detroit Yachtsmen	0:34:36	52.1
1919	Detroit Y. C.	MISS DETROIT III, Garfield A. Wood	0:32:37	56.3
1920	Detroit Y. C.	MISS AMERICA, Garfield A. Wood	0:25:44	70.0
1921	Detroit Y. C.	MISS AMERICA, Garfield A. Wood	0:32:52	56.5
1922	Detroit Y. C.	PACKARD-CHRISCRAFT, J. G. Vincent	0:44:17.77	40.6
1923	Detroit Y. C.	PACKARD-CHRISCRAFT, J. G. Vincent	0:40:30	44.4
1924	Detroit Y. C.	BABY BOOTLEGGER, Caleb Bragg	0:33:48.61	46.4
1925	Columbia Y. C.	BABY BOOTLEGGER, Caleb Bragg	0:37:11	48.4
1926	Columbia Y. C.	GREENWICH FOLLY, G. H. Townsend	0:36:34	49.22
1927	Indian Harbor Y. C.	GREENWICH FOLLY, G. H. Townsend	0:35:18	50.99
1929	Red Bank & Columbia Y. C.	IMP, R. F. Hoyt	0:35:39.04	50.489
1930	Red Bank & Columbia Y. C.	HOTSY TOTSY, V. Kliesrath	0:32:07	56.05
1931	Montauk Y. C.	HOTSY TOTSY, V. Kliesrath-R. Hoyt	0:32:46.47	54.92
1932	Montauk Y. C.	DELPHINE IV, Horace E. Dodge	0:30:24	59.21
1933	Detroit Y. C.	EL LAGARTO, G. Reis	0:29:34.4	60.866
1934	Lake George Club	EL LAGARTO, G. Reis	0:31:00.4	58.06
1935	Lake George Club	EL LAGARTO, G. Reis	0:31:16	57.582
1936	Lake George Club	IMPSHI, Horace E. Dodge	0:38:13	47.120
1937	Detroit Y. C.	NOTRE DAME, Herbert Mendelson	0:26:13.32	68.645
1938	Detroit Y. C.	ALAGI, Theo Rossi	0:27:14.38	66.080
1939	Miss Detroit P. B. A.	MY SIN, Z. G. Simmons, Jr.	0:26:50.73	67.05
1940	Indian Harbor Y. C.	HOTSY TOTSY III, Sidney Allen	0:36:04.3	51.316
1941	Red Bank Reg. Assn.	MY SIN, Z. G. Simmons, Jr.*	—	52.509
1946	Detroit, Y. C.	TEMPO VI, Guy Lombardo	0:25:23.74	70.878
1947	South Shore Y. C.	MISS PEPS V, Walter, Roy and Russell Dossin	0:31:33.6	57.02
1948	Detroit Y. C.	MISS GREAT LAKES, Albin Fallon	0:31:19.82†	57.452†
1949	Detroit River R. A.	MY SWEETIE, Bill Cantrell	0:22:53.26	78.645
1950	Detroit River R. A.	SLO-MO-SHUN IV, Stanley S. Sayres	0:22:15.03	80.892
1951	Seattle Y. C.	SLO-MO-SHUN V, Stanley S. Sayres	0:19:37	91.766
1952	Seattle Y. C.	SLO-MO-SHUN IV, Stanley S. Sayres	0:17:49.05‡	101.024‡
1953	Seattle Y. C.	SLO-MO-SHUN IV, Stanley S. Sayres	0:18:53.64	95.268
1954	Seattle Y. C.	SLO-MO-SHUN V, Stanley S. Sayres	0:18:02.34	99.784

* Only contestant. † Made by SUCH CRUST. ‡ Made by MISS PEPSI.

RECORDS FOR ONE-MILE STRAIGHTAWAY

(Through Aug. 15, 1955)

Source: Clarence E. Lovejoy, Boating Editor, *The New York Times*, and Educational Consultant, 1475 Broadway, New York 36, N. Y.

Class	Speed m.p.h.	Date	Place	Boat and owner or driver
Unlimited hydroplane	178.497	7/7/52	Seattle, Wash.	SLO-MO-SHUN IV, Stanley Sayres
7 Litre	115.203	10/3/53	Elizabeth City	MISS DE SOTO, Geo. Byers, Jr.
266 cu. in. hydroplane	121.703	11/11/52	Salton Sea, Calif.	GUESS WHO, Bob Sykes
225 cu. in. hydroplane	107.238	8/9/54	Seattle, Wash.	FLYING SAUCER, Richard Hallett
136 cu. in. hydroplane	80.066	11/8/54	Salton Sea, Calif.	BLUE BLAZES, Thos. Caldwell
135 cu. in. hydroplane	101.373	11/8/54	Salton Sea, Calif.	S. EAGLE IV, Buddy Holloway
91 cu. in. hydroplane	78.202	12/28/53	Miami, Fla.	DRAGON, Sam Crooks
48 cu. in. hydroplane	87.135	11/5/54	Salton Sea, Calif.	TINKERTOY, Duane Allen
Pacific One-Design hydro.	62.745	10/16/53	Salton Sea, Calif.	LITTLE BEAVER, Marion Beaver
Cracker Box inb. runabout	75.386	11/8/54	Salton Sea, Calif.	HOT ICE, Carl Maginn
Jersey Speed Skiff	56.604	9/25/54	New Martinsville	JO CAROL TOO, Dan Ardolina
Class M out. hydroplane	42.303	3/21/49	Lake Alfred, Fla.	————, Eleanor Shakeshaft
Class A out. hydroplane	61.069	8/9/54	Seattle, Wash.	GOTTA' GO VI, Jack Leek
Class B out. hydroplane	64.297	8/9/54	Seattle, Wash.	HORNET X, Bill Tenney
Class C out. hydroplane	68.631	8/9/54	Seattle, Wash.	HORNET XIII, Bill Tenney
Class C ser. out. hydro.	57.678	8/9/54	Seattle, Wash.	HUBBA HUBBA, Lightle Samsel
Class C racing out. runabout	63.581	8/9/54	Seattle, Wash.	CROSSWIND, Bud Wiget
Class C ser. out. runabout	51.613	5/21/49	San Diego, Calif.	MISS SANTA BARBARA, Tom Newton
Class F out. hydroplane	75.402	10/16/54	DeLake, Ore.	ROSS GO, Burt Ross
Class F rac. out. runabout	63.811	8/9/54	Seattle, Wash.	CROSSFIRE, Bud Wiget
Class B rac. inb. runabout	69.943	8/9/54	Seattle, Wash.	LIL BEE, Ernest Rose
Class E rac. inb. runabout	85.312	12/29/54	Miami, Fla.	SLIPPER-E, Guy Wilson
Class E ser. inb. runabout	56.967	8/22/54	Abingdon, Md.	VAUGHN FRANCIS, Enoch Walker
Class F ser. inb. runabout	57.280	7/8/51	Bush River, Md.	RED EAGLE, Edison Hedges
Class K rac. inb. runabout	69.438	9/8/50	Ocean City, N. J.	BEAVER III, Gene Gatter

RECORDS IN COMPETITION

Class	Dist.	Speed m.p.h.	Date	Place	Boat and driver
Unlimited	10(n)	111.7423	8/12/51	Seattle, Wash.	SLO-MO-SHUN IV, Lou Fageol
Gold Cup lap	3	108.663	8/4/51	Seattle, Wash.	SLO-MO-SHUN V, Lou Fageol
Gold Cup heat	30	103.159	8/7/55	Seattle, Wash.	SLO-MO-SHUN IV, Joe Taggert
Gold Cup race	90	99.552	8/7/55	Seattle, Wash.	GALE V, Lee Schoenith
Harmsworth lap	5(n)	102.676	9/2/50	Detroit, Mich.	SLO-MO-SHUN IV, Lou Fageol
Harmsworth heat	40(n)	100.181	9/2/50	Detroit, Mich.	SLO-MO-SHUN IV, Lou Fageol
Harmsworth race	80(n)	95.623	9/2/50	Detroit, Mich.	SLO-MO-SHUN IV, Lou Fageol
President's Cup heat	15	95.775	9/19/54	Washington, D.C.	GALE IV, Bill Cantrell
Natl. Sweepstakes heat	10	87.464	8/14/49	Red Bank, N. J.	MY SWEETIE, W. J. Cantrell
Silver Cup heat	10(n)	107.394	9/4/50	Detroit, Mich.	MISS PEPSI, Chuck Thompson
Steel Cup heat	15	67.500	5/20/50	Pittsburgh, Pa.	SUCH CRUST II, Dan Arena
Harwood Trophy	30	64.400	9/11/49	New York, N. Y.	ETTA, George Sarant
Edinburn Trophy	9	68.123	9/6/48	Detroit, Mich.	Z-Z-Zip, Sid Street
266 cu. in. hydro	5	87.890	11/10/51	Salton Sea, Calif.	ALTER EGO, Paul Sawyer
225 cu. in. hydro	5	80.433	8/19/53	Seattle, Wash.	I'M IN, Richard Hallett
48 cu. in. hydro	5	67.720	11/6/54	Salton Sea, Calif.	LOU-KAY, Louis Meyer, Jr.
91 cu. in. hydroplane	5	59.960	2/17/51	St. Petersburg	RED WITCH, Jack V. Deman
135 cu. in. hydroplane	5	77.519	11/10/51	Salton Sea, Calif.	LITTLE JOE, Morian Visel
Pacific One-Design hydro.	5	57.216	10/17/53	Salton Sea, Calif.	LITTLE BEAVER, Marion Beaver
Cracker Box inb. runabout	5	65.693	11/9/54	Salton Sea, Calif.	HOT ICE, Carl Maginn
Jersey Speed Skiff	5	46.153	9/12/53	Red Bank, N. J.	SLO POKE, James Camp

(n) — Nautical miles.

HARMSWORTH TROPHY WINNERS

Year	Boat and Country	Speed*
1903	NAPIER I, France	19.53
1904	TREFLE-A-QUATRE, England	26.63
1905	NAPIER II, England	26.03
1906	YARROW-NAPIER, England	15.48
1907	DIXIE I, United States	31.78
1908	DIXIE II, United States	31.347
1910	DIXIE III, United States	36.04
1911	DIXIE IV, United States	40.28
1912	†MAPLE LEAF IV, England	43.18
1913	MAPLE LEAF IV, England	57.45
1920	MISS AMERICA I, United States	61.51
1921	MISS AMERICA II, United States	59.75
1926	MISS AMERICA V, United States	61.118
1928	MISS AMERICA VII, United States	59.325
1929	MISS AMERICA VIII, United States	75.287
1930	MISS AMERICA IX, United States	77.233
1931	MISS AMERICA VIII, United States	85.861
1932	MISS AMERICA X, United States	78.489
1933	MISS AMERICA X, United States	86.939
1949	SKIP-A-LONG, United States	94 285
1950	SLO-MO-SHUN IV, United States	100.680

* In statute miles per hour.
† First of hydroplanes to win, predecessors being all displacement craft.

PRESIDENT'S CUP WINNERS

(3 heats of 15 statute miles each)

Year	Winner and owner	m.p.h.
1926	CIGARETTE, L. G. Hamersley	55.20
1927	MISS SYNDICATE, Horace E. Dodge	51.62
1929	IMP, Richard F. Hoyt	47.131
1930	HOTSY-TOTSY, R. Hoyt-V. Kliesrath	54.93
1931	EL LAGARTO, George Reis	51.148
1932	DELPHINE IV, Mrs. R. T. Baker	57.162
1933	EL LAGARTO, George Reis	55.555
1934	EL LAGARTO, George Reis	57.216
1935	NOTRE DAME, Herbert Mendelson	52.80
1936	MA-JA, Jack Rutherford	57.252
1937	NOTRE DAME, Herbert Mendelson	64.516
1938	ALAGI, Theo Rossi	62.285
1939	MISS CANADA III, E. A. Wilson	51.83
1940	NOTRE DAME, Herbert Mendelson	65.790
1946	MISS GREAT LAKES, Albin Fallon	69.632
1947	MISS PEPS V, Dossin Bros.	64.114
1948	SUCH CRUST, Jack Schafer	73.409
1949	No race.*	
1950	MISS PEPSI, Dossin Bros.	83.450
1951	MISS PEPSI, Dossin Bros.	78.611
1952	MISS PEPSI, Dossin Bros.	84.472
1953	SLO-MO-SHUN V, Stanley S. Sayres	91.070
1954	GALE IV, Joseph Schoenith	91.277

* *My Sweetie*, piloted by Bill Cantrell, won the first heat in 11 minutes 27 4/10 seconds. The water was too rough for the second and third heats.

AUTO RACING

THE FIRST automobiles on the road were erratic in action and driving them or even riding in them was considered a trifle risky, hence it became the sporting thing to do. Experimental excursions in crude cars gave rise to rivalry in speed over the rough roads of the Gay Nineties and this eventually led to formal contests, the first of which was a road race from Paris to Rouen in 1894, with 26 cars showing up at the starting line. Formal competition in the United States started with a road race in the Chicago district on Thanksgiving Day, 1895, and the winner, J. F. Duryea, covered the road distance of 54.36 miles at the astonishing average of 7.5 miles per hour!

Around 1900 Paris became the hub of road racing in Europe and each year there were raucous, dusty and dangerous races from Paris to Berlin, to Vienna, to Madrid and other cities on the Continent. Accidents were so numerous to drivers and spectators that, after a gory group of mishaps in the forepart of the Paris–Madrid race of 1903, the contest was halted at Bordeaux by public authorities and all road racing was brought under control. Other kinds of auto racing were exposed to view. Some contests, including 24-hour races for stock models, were held on circular or oval tracks originally built for horse racing. Finally came the special racing strips for autos, including such famous autodromes as Brooklands in England and the Indianapolis Speedway in the United States.

As a test of engine and chassis under severe conditions and great strain, auto racing rendered invaluable assistance in the development of the motor car of today.

National A. A. A. Champions

1909	Bert Dingley	1923	Eddie Hearne	1937	Wilbur Shaw
1910	Ray Harroun	1924	Jimmy Murphy	1938	Floyd Roberts
1911	Ralph Mulford	1925	Peter DePaolo	1939	Wilbur Shaw
1912	Ralph DePalma	1926	Harry Hartz	1940	Rex Mays
1913	Earl Cooper	1927	Peter DePaolo	1941	Rex Mays
1914	Ralph DePalma	1928	Louis Meyer	1946	Ted Horn
1915	Earl Cooper	1929	Louis Meyer	1947	Ted Horn
1916	Dario Resta	1930	Billy Arnold	1948	Ted Horn
1917	Earl Cooper	1931	Louis Schneider	1949	John Parsons
1918	Ralph Mulford	1932	Bob Carey	1950	Henry Banks
1919	Howard Wilcox	1933	Louis Meyer	1951	Tony Bettenhausen
1920	Gaston Chevrolet	1934	Bill Cummings	1952	Charles Stevenson
1921	Tommy Milton	1935	Kelly Petillo	1953	Sam Hanks
1922	Jimmy Murphy	1936	Mauri Rose	1954	Jimmy Bryan

History of the One-Mile Speed Mark

The first recorded effort for one mile was made in 1898 by Chasseloup-Laubat, driving a Jentaud, in France. His average was 39.23 m.p.h. This was increased to 65.79 in 1899 by Jenatzy, also in France. The first man to travel better than 100 m.p.h. was Rigolly, in 1904, at 103.56 m.p.h., followed by Baras, with 104.53 in the same year. The first over 200 m.p.h. was Major H. O. D. Segrave, who drove at 203.790 in 1927 at Daytona, Florida.

In 1947 John Cobb of London became the first person to travel more than 400 m.p.h. on land. The Englishman accomplished the feat on Sept. 16 at Bonneville, Utah, while raising the world mile record to 394.196 m.p.h. and the world kilometer (.62137 of a mile) mark to 393.825 m.p.h.

Cobb's fastest mile was covered in 8.93 seconds and his average speed was 9.1325 seconds. The Briton drove at the rate of 385.645 m.p.h. for the mile and 388.019 for the kilometer on the southward run, then increased his pace to 403.135 m.p.h. and 399.808, respectively, on the northward sprint, the best times ever recorded.

Those who drove 300 m.p.h. or better follow (all at Bonneville):

Date	Driver	Car	Average
Sept. 3, 1935	Sir Malcolm Campbell	Bluebird Special	301.1292
Nov. 19, 1937	Capt. G. E. T. Eyston	Thunderbolt #1	311.42
Aug. 27, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	345.5
Sept. 15, 1938	John Cobb	Railton	350.2
Sept. 16, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	357.5
Aug. 23, 1939	John Cobb	Railton Red Lion	368.9
Sept. 16, 1947	John Cobb	Railton Mobil Special	394.196

Indianapolis Speedway Winners

(500-mile race)

Year	Winner	Car	Second	Third	Time	Average m.p.h.
1911	Harroun	Marmon	Mulford	Bruce-Brown	6:42:08	74.59
1912	Dawson	National	Tetzloff	Hughes	6:21:08	78.70
1913	Goux	Peugeot	Wishart	Merz	6:35:05	76.92
1914	Thomas	Delarge	Duray	Guyot	6:03:45	82.47
1915	DePalma	Mercedes	Resta	Anderson	5:33:55	89.84
1916*	Resta	Peugeot	De Aleve	Mulford	3:34:17	83.26
1917–18	No races					
1919	Wilcox	Peugeot	Hearne	Goux	5:40:42	88.06
1920	Chevrolet	Monroe	Thomas	Milton	5:38:32	88.50
1921	Milton	Frontenac	Sarles	Ford	5:34:44	89.62
1922	Murphy	Murphy Special	Hartz	Hearne	5:17:30	94.48
1923	Milton	H. G. S. Special	Hartz	Murphy	5:29:50	90.95
1924	Corum-Boyer	Dusenberg Special	Cooper	Murphy	5:05:23	98.23
1925	DePaolo	Dusenberg Special	Lewis	Shafer	4:56:39	101.13
1926†	Lockhart	Miller Special	Hartz	Woodbury	4:10:17	95.88
1927	Souders	Duesenberg	Devore	Gulatta	5:07:33	97.54
1928	Meyer	Miller Special	Moore	Souders	5:01:33	99.48
1929	Keech	Simplex Special	Meyer	Gleason	5:07:25	97.58
1930	Arnold	Hartz-Miller	Cantlon	Schneider	4:58:39	100.488
1931	Schneider	Bowes Special	Frame	Hepburn	5:10:28	96.629
1932	Frame	Miller Special	Wilcox	Bergere	4:48:03.79	104.144
1933	Meyer	Miller Special	Shaw	Moore	4:48:12.75	104.089
1934	Cummings	Miller Special	Rose	Moore	4:46:05.20	104.863
1935	Petillo	Gilmore Special	Shaw	Cummings	4:42:22.71	106.240
1936	Meyer	Ring Free Special	Horn	Mackenzie	4:35:03.39	109.069
1937	Shaw	Shaw-Gilmore Special	Hepburn	Horn	4:24:07.80	113.580
1938	Roberts	Burd Piston Reg. Special	Shaw	Miller	4:15:58.40	117.200
1939	Shaw	Boyle Special	Snyder	Bergere	4:20:47.39	115.035
1940	Shaw	Boyle Special	Mays	Rose	4:22:31.17	114.277
1941	Rose-Davis‡	Noc-Out Hose Clamp Special	Mays	Horn	4:20:36.24	115.117
1942–45	No races					
1946	Robson	Thorne Eng. Special	Jackson	Horn	4:21:16.71	114.820
1947	Rose	Blue Crown Special	Holland	Horn	4:17:52.17	116.338
1948	Rose	Blue Crown Special	Holland	Nalon	4:10:23.38	119.813
1949	Holland	Blue Crown Special	Parsons	Connor	4:07:15.97	121.327
1950§	Parsons	Wynn's Friction Proof Spl.	Holland	Rose	2:46:55.97	124.002
1951	Wallard	Belanger Special	Nazaruk	McGrath-Ayulo	3:57:38.05	126.244
1952	Ruttman	Agajanian Special	Rathmann	Hanks	3:52:41.88	128.922
1953	Vukovich	Fuel Injection Spl.	Cross	Hanks-Carter	3:53:01.69	128.740
1954	Vukovich	Fuel Injection Spl.	Bryan	McGrath	3:49:17.27	130.840

* 300 miles. † Race ended at 400 miles owing to heavy rain. ‡ Davis drove 180 miles, Rose, 320. § 1950 race ended at 345 miles because of rain.

Moss First in Auto Race

Stirling Moss, with a Mercedes, captured the Mille Miglia auto race in record time in 1955. The 24-year-old Englishman covered the 990-mile route from Brescia, Italy, to Rome and back to Brescia in 10 hours 7 minutes 48 seconds. He had an average speed of 98.53 miles, well above the previous mark of 87.96 m.p.h., set by Italy's Giannino Marzotto in 1953. Another Mercedes, driven by Juan Manuel Fangio of Argentina, was second in the 1955 grind and Umberto Maglioli of Italy was third in a Ferrari.

Trintignant Takes Grand Prix

Maurice Trintignant of France won the Grand Prix of Europe auto race in 1955. Driving a Ferrari, Trintignant was timed in 2 hours 58 minutes 9.8 seconds, a record for the 100-lap event, which was held at Monte Carlo, Monaco. The victor had an average speed of 105.914 kilometers (65.66 m.p.h.) for the 314.5 kilometers (about 196.5 miles).

WALKING

World Professional Records

Dist.	Time	Record-holder	Date
75 yd.	0:11.8	Harry Fitzpatrick	May 15, 1911
100 yd.	0:14.0	Bill Mihalo	Sept. 2, 1952
150 yd.	0:23.6	Harry Fitzpatrick	April 20, 1913
440 yd.	1:18.0	Bill Mihalo	Oct. 10, 1952
880 yd.	2:51.0	Bill Mihalo	Oct. 10, 1952
3/4 mi.	4:57.0	T. H. Armstrong	Oct. 22, 1888
1 mi.	6:04.9	Bill Mihalo	Feb. 17, 1953
2 mi.	13:49.0	J. W. Raby	Aug. 20, 1883
5 mi.	36:08.0	J. Meagher	Nov. 19, 1882
10 mi.	1:10:23.0	Bill Mihalo	Nov. 24, 1952
15 mi.	2:02:20.0	D. A. Driscoll	Feb. 1, 1881
20 mi.	2:50:05.0	D. A. Driscoll	Feb. 1, 1881
25 mi.	3:40:14.0	W. Franks	Aug. 28, 1882
50 mi.	7:01.00.0	Bill Mihalo	Aug. 2, 1955
100 mi.	15:02.00.0	Bill Mihalo	Aug. 2, 1955

The coast-to-coast (New York-to-California) record is 80 days, set by John Ennis in 1910.

England Keeps 'The Ashes'

England defeated Australia, 3 to 1, with one match drawn, in the 1955 competition for "The Ashes," mythical symbol of international supremacy in cricket. The English team clinched the series by beating Australia by five wickets in the fourth test at Adelaide.

1955 CHAMPIONS AND RECORDS

★

ICE HOCKEY

National League

Stanley Cup Play-Offs

SERIES C—FINAL

*April 3—Detroit 4, Montreal 2
*April 5—Detroit 7, Montreal 1
April 7—Montreal 4, Detroit 2
April 9—Montreal 5, Detroit 3
*April 10—Detroit 5, Montreal 1
April 12—Montreal 6, Detroit 3
*April 14—Detroit 3, Montreal 1
* At Detroit.

FINAL STANDING OF THE CLUBS

	W.	L.	Pts.	Goals For	Agst.
Detroit Red Wings...	4	3	8	27	20
Montreal Canadiens .	3	4	6	20	27

SERIES A—SEMIFINAL

*March 22—Detroit 7, Toronto 4
*March 24—Detroit 2, Toronto 1
March 26—Detroit 2, Toronto 1
March 29—Detroit 3, Toronto 0
* At Detroit.

FINAL STANDING OF THE CLUBS

	W.	L.	Pts.	Goals For	Agst.
Detroit Red Wings...	4	0	8	14	6
Toronto Maple Leafs.	0	4	0	6	14

SERIES B—SEMIFINAL

*March 22—Montreal 3, Boston 1
*March 24—Montreal 3, Boston 2
March 27—Boston 4, Montreal 2
March 29—Montreal 4, Boston 3†
March 31—Montreal 5, Boston 1
* At Montreal. † Overtime.

FINAL STANDING OF THE CLUBS

	W.	L.	Pts.	Goals For	Agst.
Montreal Canadiens .	4	1	8	17	11
Boston Bruins.....	1	4	2	11	17

Final 1954-55 Standing of the Clubs

(Regular season)

	W.	L.	T.	Pts.	Goals For	Agst.
Detroit Red Wings.....	42	17	11	95	204	134
Montreal Canadiens....	41	18	11	93	228	157
Toronto Maple Leafs...	24	24	22	70	147	135
Boston Bruins.....	23	26	21	67	169	188
New York Rangers.....	17	35	18	52	150	210
Chicago Black Hawks..	13	40	17	43	161	235

LEADING 1954-55 SCORERS

Stanley Cup Play-Offs

	Gms.	Gls.	As.	Pts.	PIM
Gordie Howe, Detroit....	11	9	11	20	22
Ted Lindsay, Detroit.....	11	7	12	19	12
Alex Delvecchio, Detroit .	11	7	8	15	2
Bernie Geoffrion, Mont. .	12	8	5	13	8
Jean Beliveau, Montreal .	12	6	7	13	18
Floyd Curry, Montreal...	12	8	4	12	4
Earl Reibel, Detroit.....	11	5	7	12	2
Calum MacKay, Mont...	12	3	8	11	8
Ken Mosdell, Montreal ..	12	2	7	9	8

Regular Season

	Gms.	Gls.	As.	Pts.	PIM
Bernie Geoffrion, Mont. .	70	38	37	75	57
Maurice Richard, Mont..	67	38	36	74	125
Jean Beliveau, Montreal .	70	37	36	73	58
Earl Reibel, Detroit.....	70	25	41	66	15
Gordie Howe, Detroit....	64	29	33	62	68
Red Sullivan, Chicago ...	69	19	42	61	51
Bert Olmstead, Montreal	70	10	48	58	103
Sid Smith, Toronto.....	70	33	21	54	14
Ken Mosdell, Montreal ..	70	22	32	54	82
Dan Lewicki, New York..	70	29	24	53	8
Ted Kennedy, Toronto...	70	10	42	52	74
Ed Litzenberger, Mt.-Chi.	73	23	28	51	40
Doug Harvey, Montreal..	70	6	43	49	58
Alex Delvecchio, Detroit .	69	17	31	48	37
Red Kelly, Detroit.....	70	15	30	45	28
Leo LaBine, Boston.....	67	24	18	42	75
Don McKenney, Boston..	69	22	20	42	34
Nick Mickoski, N. Y.-Chi.	70	10	32	42	34
Andy Bathgate, N. Y.....	70	20	20	40	37
Real Chevrefils, Boston ..	64	18	22	40	30
Don Raleigh, N. Y.....	69	8	32	40	19
Ted Lindsay, Detroit.....	49	19	19	38	85
Cal Gardner, Boston.....	70	16	22	38	40
Dickie Moore, Montreal..	67	16	20	36	32
Marcel Bonin, Detroit...	69	16	20	36	53

1954-55 ALL-STAR SELECTIONS

	First team	Second team
Goal	Harry Lumley, Toronto	Sawchuk, Detroit
Defense	Doug Harvey, Montreal	Goldham, Detroit
Defense	Red Kelly, Detroit	Flaman, Boston
Center	Jean Beliveau, Montreal	Mosdell, Montreal
R. W.	Maurice Richard, Montreal	Geoffrion, Montreal
L. W.	Sid Smith, Toronto	Lewicki, New York

1954-55 TROPHY WINNERS

Hart (most valuable player)—Ted Kennedy, Toronto
Ross (leading scorer)—Bernie Geoffrion, Montreal
Lady Byng (sportsmanship)—Sid Smith, Toronto
Calder (top rookie)—Ed Litzenberger, Montreal-Chicago
Vezina (leading goalie)—Terry Sawchuk, Detroit
Norris (best defenseman)—Doug Harvey, Montreal

American League

Final 1954-55 Standing of the Clubs

(Regular season)

	W.	L.	T.	Pts.	Goals For	Agst.
*Pittsburgh Hornets...	31	25	8	70	187	180
Cleveland Barons.....	32	29	3	67	254	222
Springfield Indians....	32	29	3	67	251	233
Buffalo Bisons.....	31	28	5	67	248	228
Hershey Bears.....	29	28	7	65	217	225
Providence Reds.....	21	37	6	48	194	263

* Won play-offs.

Leading Scorers

(Regular season)

	Gms.	Gls.	As.	Pts.	PIM
Eddie Olson, Cleveland ..	60	41	47	88	48
Ross Lowe, Springfield...	60	32	50	82	91
Ken Wharram, Buffalo...	63	33	49	82	15
Fred Glover, Cleveland...	58	33	42	75	108
Walt Atanas, Springfield.	62	29	45	74	66
Zellio Toppazzino, Prov..	62	21	53	74	12

Frank Boucher Quits Rangers

Frank Boucher, one of ice hockey's greats, ended an uninterrupted association of 29 years with the New York Rangers when he resigned as manager in April 1955. Boucher was the center on a famous line that included Bill and Bun Cook at the wings before he became an executive.

Ice Hockey (contd.)

Western League

Final 1954-55 Standing of the Clubs

(Regular season)

	W.	L.	T.	Pts.	Goals For	Goals Agst.
*Edmonton Flyers	39	20	11	89	273	204
Victoria Cougars	33	29	8	74	237	199
Vancouver Canucks	31	20	9	71	207	202
Calgary Stampeders	29	29	12	70	262	258
New Westminster Royals	29	32	9	67	249	299
Saskatoon Quakers	19	40	11	49	207	273

* Won play-offs.

Leading Scorers

(Regular season)

	Gms.	Gls.	As.	Pts.	PIM
Bronco Horvath, Edmont.	67	50	60	110	71
John Bucyk, Edmonton	70	30	58	88	57
Guyle Fielder, New West.	70	20	67	87	37
Eddie Dorohoy, Victoria	68	33	52	85	41
Gerry Couture, Calgary	70	33	49	82	8
Max McNab, New West	70	32	49	81	4
Andy Hebenton, Victoria	70	46	34	80	20
Gordon Fashaway, New W.	70	45	32	77	20
Sid Finney, Calgary	70	35	42	77	20
Ed Stankiewicz, Edmonton	59	27	45	72	96
Paul Larivee, Providence	64	29	45	74	19
Arnie Kullman, Hershey	62	23	48	71	67
Obie O'Brien, Hershey	62	31	38	69	28
Joe Lund, Buff.-Cleve	61	24	44	68	66

Quebec League

Final 1954-55 Standing of the Clubs

	W.	L.	T.	†Pts.	Goals For	Goals Agst.
Shawinigan Cataracts	39	20	3	79	228	145
Quebec Aces	31	27	2	65	206	208
Montreal Royals	30	28	4	63	232	207
*Chicoutimi Sagueneens	29	29	3	61	216	212
Valleyfield Braves	21	39	2	42	178	261

* Won play-offs. † Special point system used because of withdrawal of Ottawa team.

Leading Scorers

(Regular season)

	Gms.	Gls.	As.	Pts.	PIM
Kelly Burnett, Montreal	62	30	46	76	12
Louis Denis, Montreal	62	20	47	67	8
Orval Tessier, Montreal	60	36	30	66	8
Roland Leclerc, Valleyfield	61	32	34	66	30
Ray Powell, Quebec	53	22	43	65	22
Andre Corriveau, Vl'yfield	56	31	32	63	63
Connie Broden, Shwn'gn.	62	27	35	62	25
Gerard Desaulniers, Shaw.	61	31	30	61	10
Louis Smrike, Chicoutimi	60	25	36	61	34
Skippy Burchell, Montreal	61	19	41	60	50

Amateur Ice Hockey

International League

FINAL 1954–55 STANDING OF THE CLUBS

(Regular season)

	W.	L.	T.	Pts.	Goals For	Goals Agst.
*Cincinnati	40	19	1	81	164	81
Troy	31	27	2	64	190	180
Toledo	31	29	0	62	183	196
Grand Rapids	28	31	1	57	199	215
Johnstown	25	34	1	51	188	219
Fort Wayne	22	37	1	45	181	235

* Won play-offs.

1955 World Championship

FINAL STANDING OF THE TEAMS

	W.	L.	T.	Pts.	Goals For	Goals Agst.
*Canada	8	0	0	16	66	6
†Russia	7	1	0	14	39	13
Czechoslovakia	5	2	1	11	63	22
United States	4	2	2	10	33	29
Sweden	4	3	1	9	40	16
Germany	2	6	0	4	28	43
Poland	2	6	0	4	19	59
Switzerland	1	7	0	2	15	59
Finland	1	7	0	2	16	72

* Penticton V's. † Won European championship.

OTHER CHAMPIONS, 1955

Canada

Edinburgh Trophy (professional championship of Canada)—Shawinigan Falls Cataracts beat Edmonton Flyers, 5 games to 2.

Allan Cup (senior amateur)—Kitchener-Waterloo Dutchmen beat Fort Williams Braves, 4 games to 1.

Memorial Cup (junior amateur)—Toronto Marlboros beat Regina Pats, 4 games to 1.

Intercollegiate—Toronto

United States

National Amateur (senior)—Delise Coffee Raiders, New Haven, Conn.

National Amateur (junior)—St. Dominicks, Lewiston, Maine

National Collegiate—Michigan

Ivy League—Harvard

Eastern League—Washington

MEN'S LACROSSE

1955 Champions

National Open—Mt. Washington L. C., Baltimore

National Intercollegiate (Wingate Trophy)—Maryland

North–South Game—South 12, North 11, at Baltimore

Other Trophy Winners

Cy Miller—Maryland

Laurie Cox—Hofstra and Rutgers (tie)

Roy Tayler—New Hampshire

1955 All-American Selections

FIRST TEAM—Goal: Clement Malin (Dartmouth); defense: John Raster (Navy), John Simmons (Maryland), Carl Orent (Hofstra); midfield: Si Ulcickas (Navy), Robert Kelley (Rutgers), James Keating (Maryland); attack: Charles Wicker (Maryland), Percy Williams (Navy), John Griffis (R.P.I.)

SECOND TEAM—Goal: James Kappler (Maryland); defense: Roy Dunway (Army), John Pendergast (Yale), John Petersen (Princeton); midfield: John Giddings (Army), Ronnie Beagle (Navy), William Johnson (New Hampshire); attack: Robert Andrews (Rutgers), Gerald Simandl (Hofstra), Rennie Smith (Maryland).

North-South Game Line-Ups

SOUTH—Goal: Ruland (Johns Hopkins); defense: Raster (Navy), Spies (Maryland), D. Herbert (Johns Hopkins); midfield: Ford (Washington and Lee), Ulcickas (Navy), Grieves (Virginia); attack: R. Smith (Maryland), P. E. Williams (Navy), Kirtz (Pennsylvania). Substitutes: Parker (Washington College), Johnson (W. and L.), Henry (Drexel), Heaton (Swarthmore), Kroh (Baltimore), Evans (Kenyon), Phillips (Loyola), Harrington (Duke), Wise (Drexel), Longest (Maryland), Gross (Loyola).

NORTH—Goal: Van Doren (Yale); defense: Pickett (Army), Magadini (Rensselaer Poly), Orent (Hofstra); midfield: Russell (Princeton), Stinson (Princeton), Eastman (Yale); attack: Lloyd (Yale), Fish (Princeton), Griffis (R.P.I.). Substitutes: Jameson (Union), Lahood (Hofstra), Fauntleroy (Cornell), Auger (Army), Tucker (Syracuse), Giddings (Army), E. Smith (Syracuse), Montgomery (Rutgers), Shriver (Cornell), Kraus (Hobart), Simandl (Hofstra).

SCORE BY PERIODS

South	2	2	3	5—12
North	3	3	1	4—11

Goals—South: Kirtz 3, Grieves, R. Smith, Ulcickas 2, Williams 4, Kroh. North: Griffis 3, Lloyd, Fish 3, Montgomery, E. Smith, Eastman, Russell. Shots—North 58, South 52. Saves—Van Doren 16, Jameson 0, Ruland 20, Parker 2. Penalties—North 8, South 4. Assists—Griffis 2, Russell, Giddings, Grieves 2, Ulcickas 2, P. Williams 2.

BASKETBALL

Intercollegiate

FINAL 1954-55 CONFERENCE STANDINGS

Eastern League

	W.	L.		W.	L.
*Princeton	11	4	Cornell	8	6
Columbia	11	5	Brown	3	11
Pennsylvania	10	5	Harvard	3	11
Dartmouth	9	5	Yale	3	11

* Beat Columbia in title play-off.

Western

	W.	L.		W.	L.
Iowa	11	3	Michigan	5	9
Illinois	10	4	Indiana	5	9
Minnesota	10	4	Purdue	5	9
Michigan State	8	6	Wisconsin	5	9
Northwestern	7	7	Ohio State	4	10

Southwest

	W.	L.		W.	L.
So. Methodist	9	3	Rice	6	6
Texas Christian	8	4	Texas	3	9
Arkansas	8	4	Texas A. & M.	1	11
Baylor	7	5			

Pacific Coast

NORTHERN DIVISION	W.	L.	SOUTHERN DIVISION	W.	L.
*Oregon State	15	1	U. C. L. A.	11	1
Oregon	8	8	Stanford	7	5
Washington	7	9	So. California	5	7
Wash. State	5	11	California	1	11
Idaho	11	11			

* Beat U. C. L. A. in title play-offs.

Missouri Valley

	W.	L.		W.	L.
*Tulsa	8	2	Wichita	4	6
*St. Louis	8	2	Houston	3	7
Okla. A. & M.	5	5	Detroit	2	8

* Co-champion.

Big Seven

	W.	L.		W.	L.
Colorado	11	1	Kansas	5	7
Missouri	9	3	Iowa State	4	8
Kansas State	6	6	Oklahoma	1	11
Nebraska	6	6			

1955 N. C. A. A. FINAL

(At Kansas City, Mo., March 19)

SAN FRANCISCO (77)	G.	F.	P.	LA SALLE (63)	G.	F.	P.
Mullen, lf	4	2	10	O'Malley, lf	4	2	10
Kirby	0	0	0	Maples	0	0	0
Buchanan, rf	3	2	8	Singley, rf	8	4	20
Wiebuson	2	0	4	Blatcher	4	0	8
King	0	0	0	Gola, c	6	4	16
Russell, c	9	5	23	Fredericks	0	0	0
Lawless	1	0	2	Lewis, lg	1	4	6
Jones, lg	10	4	24	Greenberg, rg	1	1	3
Bush	0	0	0				
Perry, rg	1	2	4	Total	24	15	63
Zannine	1	0	2				
Baxter	0	0	0				
Total	31	15	77				

Half-time score—San Francisco 36, La Salle 24.
Personal fouls—Mullen 5, Kirby 1, Buchanan 1, Russell 1, Jones 2, Perry 4, O'Malley 1, Singley 1, Blatcher 1, Gola 4, Lewis 1, Greenberg 4.
Free throws missed—Mullen 3, Russell 2, O'Malley, Gola, Lewis 5, Greenberg.

1954-55 ALL-AMERICA SELECTIONS

(Associated Press poll)

FIRST TEAM—Tom Gola, La Salle; Robin Freeman, Ohio State; Bill Russell, San Francisco; Dick Ricketts, Duquesne; Darrell Floyd, Furman.
SECOND TEAM—Don Schlundt, Indiana; Dick Hemric, Wake Forest; Si Green, Duquesne; Dick Garmaker, Minnesota; Ron Shavlik, North Carolina State.
THIRD TEAM—Tom Heinsohn, Holy Cross; Dick Wilkinson, Virginia; Bob Burrow, Kentucky; Dick Boushka, St. Louis; Maurice Stokes, St. Francis (Pa.).

OTHER CHAMPIONS

Intercollegiate

National (New York) Invitation—Duquesne
Southeastern Conference—Kentucky
Southern Conference—West Virginia
Atlantic Coast Conference—North Carolina State
Mason-Dixon Conference—Mt. St. Mary's
Mountain States (Skyline)—Utah
Border Conference—West Texas State and Texas Tech (tie)
Rocky Mountain Conference—Idaho State
Mid-West Conference—Cornell (Iowa)
Mid-American Conference—Miami (Ohio)
National Assn. (N.A.I.A.)—East Texas State
National Junior—Moberly (Mo.)
Central A. A.—North Carolina College (visitation); Virginia Union (tournament)
Canadian—Western Ontario

Amateur Athletic Union

Men—Phillips 66 Oilers, Bartlesville, Okla.
Women—Wayland College Queens, Plainview, Tex.

FINAL 1954–55 COLLEGE RANKINGS

(Associated Press poll)

1, San Francisco; 2, Kentucky; 3, La Salle; 4, North Carolina State; 5, Iowa; 6, Duquesne; 7, Utah; 8, Marquette; 9, Dayton; 10, Oregon State.

Professional

Source: Haskell Cohen, Publicity Director, National Basketball Association.

NATIONAL BASKETBALL ASSOCIATION

Final 1954-55 Standing of the Clubs

(Regular season)

EASTERN DIVISION

	Won	Lost	Pct.	Avg. pts. per game
Syracuse Nationals	43	29	.597	91.1
New York Knickerbockers	38	34	.528	92.7
Boston Celtics	36	36	.500	101.4
Philadelphia Warriors	33	39	.458	93.2

WESTERN DIVISION

	Won	Lost	Pct.	Avg. pts. per game
Fort Wayne Pistons	43	29	.597	92.4
Minneapolis Lakers	40	32	.556	95.6
Rochester Royals	29	43	.403	90.8
Milwaukee Hawks	26	46	.361	87.4

West Virginia Tech made college basketball history in 1954–55 by scoring more than 100 points per game during its twenty contests. The quintet, the first to go over the century mark, averaged 107.5 per game and won 15 encounters.

Basketball (contd.)

TEAM-VS.-TEAM VICTORIES

(Regular season)

	Syracuse	Fort Wayne	Minneapolis	New York	Boston	Philadelphia	Rochester	Milwaukee	Points For	Points Ags.
Syracuse	—	7	3	8	6	7	7	5	6557	6457
Fort Wayne	2	—	9	2	5	6	8	11	6652	6480
Minneapolis	6	3	—	4	6	6	8	7	6885	6801
New York	4	7	5	—	6	5	5	6	6671	6665
Boston	6	4	3	6	—	7	4	6	7303	7309
Philadelphia	5	3	3	7	5	—	5	5	6712	6732
Rochester	2	4	4	4	5	4	—	6	6535	6652
Milwaukee	4	1	5	3	3	4	6	—	6291	6510

Eastern Division Play-offs

Boston beat New York, 2 games to 1.
Final—Syracuse beat Boston, 3 games to 1.

Western Division Play-offs

Minneapolis beat Rochester, 2 games to 1.
Final—Fort Wayne beat Minneapolis, 3 games to 1.

Championship Series

***March 31—Syracuse 86, Fort Wayne 82.**
***April 2—Syracuse 87, Fort Wayne 84.**
†April 3—Fort Wayne 96, Syracuse 89.
†April 5—Fort Wayne 109, Syracuse 102.
†April 7—Fort Wayne 74, Syracuse 71.
***April 9—Syracuse 109, Fort Wayne 104.**
***April 10—Syracuse 92, Fort Wayne 91.**

* At Syracuse. † At Indianapolis.

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Syracuse Nationals	4	3	.571
Fort Wayne Pistons	3	4	.429

Leading Scorers

(Regular season)

	Gms.	Gls.	Fls.	Pts.
Neil Johnston, Philadelphia	72	521	589	1631
Paul Arizin, Philadelphia	72	529	454	1512
Bob Cousy, Boston	71	522	460	1504
Bob Pettit, Milwaukee	72	520	426	1466
Frank Selvy, Milwaukee	71	452	444	1348
Adolph Schayes, Syracuse	72	422	489	1333
Vern Mikkelsen, Minneapolis	71	440	447	1327
Clyde Lovellette, Minneapolis	70	519	273	1311
Bill Sharman, Boston	68	453	347	1253
Ed Macauley, Boston	71	403	442	1248
Larry Foust, Fort Wayne	70	398	393	1189
Carl Braun, New York	71	400	274	1074
Harry Gallatin, New York	72	330	393	1053
Paul Seymour, Syracuse	72	375	300	1050
Ray Felix, New York	72	364	310	1038
George Yardley, Fort Wayne	60	363	310	1036
Jim Baechtold, New York	72	362	279	1003
Slater Martin, Minneapolis	72	350	276	976
Joe Graboski, Philadelphia	70	373	208	954
Nat Clifton, New York	72	360	224	944
Bobby Wanzer, Rochester	72	324	294	942
Jack Coleman, Rochester	72	400	124	924
Bob Davies, Rochester	72	326	220	872
Mel Hutchins, Fort Wayne	72	341	182	864

East Quintet Triumphs

The East defeated the West, 100–91, at Madison Square Garden, New York, in the National Basketball Association's fifth all-star game in 1955. Bill Sharman of the Boston Celtics and the winners was named the most valuable player in the contest.

BOBSLEDDING

World Championships

(At St. Moritz, Switzerland)

Two-man (Jan. 22–23)—Fritz Feierabend–Harry Warbourton, Switzerland. Time (4 heats)—5 minutes 33.28 seconds.
Four-man (Jan. 29–30)—Switzerland No. 2 (Franz Kapus, driver; Gottfried Eiener; Robert Alt; Henrich Angst, brake). Time (4 heats)—5:10.52.

National A. A. U.

(At Lake Placid, N. Y.)

Two-man (Feb. 5)—Waightman Washbond–Pat Martin, Sno Birds of Lake Placid Club. Time—5:04.16.
Four-man (Feb. 6)—Saranac Lake B. C. (Monroe Flagg, driver; Lloyd Miller; James Lamy; Charles Pandolph, brake). Time—4:46.67.

Adirondack A. A. U.

Two-man (Jan. 30)—Stan Benham–James Bickford, Sno Birds of Lake Placid Club. Time—5:01.47.
Four-man (Jan. 29)—Sno Birds of Lake Placid Club (Stan Benham, driver; Pat Martin; John Wells; John Helmer, brake). Time—4:44.77.

U. S. Olympic Tryouts

Two-man (Feb. 12–13)—Waightman Washbond–Pat Martin, Sno Birds of Lake Placid Club. Heat times—1:20.66, 1:19.21, 1:17.80, 1:16.05. Total time—5:13.72.
Four-man (Feb. 19–20)—Rochester B. C. (Art Tyler, driver; William Dodge; Thomas Butler; Edgar Seymour, brake). Heat times—1:11.13, 1:11.31, 1:10.34, 1:11.24. Total time—4:44.02.

BOWLING

CHAMPIONS

American Bowling Congress

All-events—Fred Bujack, Detroit 1993
Singles—Eddie Gerzine, Milwaukee 738
Doubles—George Pacropis–Harry Zoeller, Wilkes-Barre, Pa. 1365
Team—Pfeiffer Beer, Detroit
Masters'—Buzz Fazio, Detroit (W 7, L 0)

Woman's International B. C.

All-events—Mrs. Marion Ladewig, Grand Rapids, Mich. 1890
Singles—Nellie Vella, Rockford, Ill. 695
Doubles—Wyllis Ryskamp–Mrs. Marion Ladewig, Grand Rapids 1264
Team—Fallstaff, Chicago 2991

All-Star Champions

Men—Steve Nagy, Cleveland
Women—Sylvia Wene, Philadelphia

DUCK PINS

National Tournament Champions

All-events—Tom Fitzgerald, Fall River 1284
Singles—Walter Surowiecki, Meriden, Conn. 445
Doubles—Tom Fitzgerald–George Vetos, Fall River, Mass. 861
Team—Guida's Dairy–Blue Ribbons, New Britain, Conn. 1988
Mixed doubles—Frances Kupec, Windsor, Conn.–George Pelletier, Danielson, Conn. 792

Women

All-events—Elizabeth Barger, Baltimore 1152
Singles—Edith Christensen, Washington 420
Doubles—Julie Dubiel–Ann Plude, Avon, Conn. 766
Team—Brunswick Red Crowns–Pimlico, Baltimore 1800

ICE (SPEED) SKATING

Championships

World—Men

(At Moscow, U.S.S.R., Feb. 19–20)

All-around—Sigge Ericsson, Sweden..... 194.996 pts.
500 meters—Toivo Salonen, Finland..... 0:42.6
1,500 meters—Oleg Goncharenko, U.S.S.R..... 2:20.6
5,000 meters—Knut Johannesen, Norway..... 8:33.0
10,000 meters—Sigge Ericsson..... 17:09.8

World—Women

(At Kuopio, Finland, Feb. 12–13)

All-around—Rimma Zhukova, U.S.S.R..... 212.857 pts.
500 meters—Tamara Rylova, U.S.S.R..... 0:48.9
1,000 meters—Sofia Kondakova, U.S.S.R..... 1:40.9
3,000 meters—Rimma Zhukova..... 5:33.1
5,000 meters—Rimma Zhukova..... 9:26.4

European

(At Falun, Sweden, Feb. 5–6)

All-around—Sigge Ericsson, Sweden..... 205.960 pts.
500 meters—Evgenij Grischin, U.S.S.R..... 0:44.7
1,500 meters—Evgenij Grischin, Hroar Elvenes, Norway..... 2:27.8
5,000 meters—Sigge Ericsson..... 8:57.2
10,000 meters—Sigge Ericsson..... 18:32.8

North American Outdoor

(At Saranac Lake, N. Y., Feb. 12–13)

220 yd.—Jay Hasbrouck, Newburgh, N. Y... 0:20.2
440 yd.—Jay Hasbrouck..... 0:37.9
880 yd.—Jay Hasbrouck..... 1:28.3
¾-mile—Jay Hasbrouck..... 2:19.1
1 mile—Jay Hasbrouck..... 3:12.8
2 miles—Dick Walton, New York..... 6:24.3
5 miles—Alec Grogan, Pittsfield, Mass..... 16:25.6
Champion—Jay Hasbrouck..... 160 pts.

WOMEN

220 yd.—Pat Gibson, Madison, Wis..... 0:21.7
440 yd.—Pat Gibson..... 0:42.8
880 yd.—Jeanne Robinson, Detroit..... 1:35.4
¾-mile—Pat Gibson..... 2:35.5
1 mile—Pat Gibson..... 3:26.0
Champion—Pat Gibson..... 140 pts.

North American Indoor

(At Milwaukee, March 5–6)

440 yd.—Bill Disney, Pasadena, Calif..... 0:39.8
880 yd.—Bill Disney..... 1:23.1
¾-mile—Jim Campbell, Chicago..... 2:09.2
1 mile—Jim Campbell..... 2:59.1
2 miles—Bill Disney..... 6:04.8
Champion—Bill Disney..... 110 pts.

WOMEN

440 yd.—Pat Underhill, Edmonton, Alberta 0:43.2
880 yd.—Mrs. Barbara M. DeSchepper, Detroit..... 1:26.4
¾-mile—Mrs. Barbara M. DeSchepper..... 2:18.3
1 mile—Mrs. Barbara M. DeSchepper..... 3:11.8
Champion—Mrs. Barbara M. DeSchepper.. 100 pts.

United States Outdoor

(At St. Paul, Jan. 29–30)

220 yd.—Bill Carow, West Allis, Wis..... 0:18.4
440 yd.—Ken Bartholomew, Minneapolis... 0:36.8
880 yd.—Ken Bartholomew..... 1:21.2
¾-mile—Ken Bartholomew..... 2:36.2
1 mile—Arnold Uhrlass, Newburgh, N. Y... 3:30.7
2 miles—Gene Sandvig, Minneapolis..... 5:46.8
5 miles—Ken Bartholomew..... 15:50.7
Champion—Ken Bartholomew..... 160 pts.

WOMEN

220 yd.—Pat Gibson, Madison, Wis..... 0:20.2
440 yd.—Pat Gibson..... 0:40.8
880 yd.—Pat Gibson..... 1:36.8
¾-mile—Pat Gibson..... 2:27.6
1 mile—Pat Gibson..... 3:33.4
Champion—Pat Gibson..... 150 pts.

United States Indoor

(At Saranac Lake, N. Y., Feb. 26–27)

440 yd.—Bill Disney, Pasadena, Calif..... 0:40.1
880 yd.—Bob Olson, Glendale, Calif..... 1:16.0
¾-mile—Jay Hasbrouck, Newburgh, N. Y.. 2:06.6
1 mile—Jay Hasbrouck..... 2:56.3
5 miles—Bill Disney..... 15:49.1
Co-champions—Bill Disney and Jay Hasbrouck..... 100 pts. each

WOMEN

440 yd.—Mrs. Barbara M. DeSchepper, Detroit..... 0:43.4
880 yd.—Mrs. Barbara M. DeSchepper..... 1:29.3
¾-mile—Mrs. Barbara M. DeSchepper..... 2:21.6
1 mile—Mrs. Barbara M. DeSchepper..... 3:15.2
Champion—Mrs. Barbara M. DeSchepper. 120 pts.

Middle Atlantic

Men—Jay Hasbrouck, Newburgh, N. Y.... 120 pts.
Women—Joan Russell, Newburgh, N. Y... 90 pts.

BILLIARDS

Irving Crane of Binghamton, N. Y., regained the world pocket billiard championship in 1955 by capturing a four-player round-robin tournament at Philadelphia. Crane and Willie Mosconi, the defending titleholder, had 5–1 records at the end of the regular competition, necessitating a play-off. Crane took the extra match, 150 to 87, in thirty-two innings. Jimmy Caras finished third with two victories in six matches and Erwin Rudolph was fourth and last with an 0–6 mark.

Intercollegiate Champions

Pocket—Rodney Boyd, Ohio State
Three-cushion—Bob Strange, Michigan State
Straight-rail—Bob Blackham, Utah U.
Co-ed pocket—Judy Ferles, Arizona

TEAM

Pocket—Arizona
Three-cushion—Oregon
Straight-rail—Michigan State
Co-ed pocket—Arizona

Boys' Clubs of America

Senior—John F. Scully, Madison Square, New York
Junior—Michael Doran, Flatbush B. C., Brooklyn
Team—Tompkins Square, New York

SQUASH RACQUETS

Team

Lapham Trophy (men)—Canada 7. United States 6, at Quebec City, Quebec.
Wolfe-Noel Cup (women)—England 4. United States 1, at Merion Cricket Club, Haverford, Pa.

United States Champions

Open—G. Diehl Mateer, Jr., Philadelphia
Singles—Henri Salaun, Boston
Doubles—Ed and Joe Hahn, Detroit
Professional—Hashim Khan, Pakistan
Intercollegiate—Roger Campbell, Princeton
Intercollegiate team—Princeton
Veterans'—Germain G. Glidden, Norwalk, Conn.

WOMEN

Singles—Janet Morgan, England
Doubles—Janet Morgan-Sheila Speight, England
Seniors'—Mrs. Ellwood I. Beatty Jr., Cynwyd, Pa.

Other Champions

Cowles Invitation—Henri Salaun
Canadian singles—G. Diehl Mateer, Jr.
Howe Cup (women)—New York

TRACK AND FIELD

A. A. U. Championships

Senior Outdoor

(At Boulder, Colo., June 24-25)

100-yd.—Bobby Morrow, Abilene Christian	0:09.5
220 yd.—Rod Richards, U. S. Army	0:21.0
440 yd.—Charles Jenkins, Villanova	0:46.7
880 yd.—Arnold Sowell, Pittsburgh	1:47.6
Mile run—Wes Santee, Marine Corps	4:11.5
3 miles—Horace Ashenfelter, New York A. C.	14:45.2
6 miles—Dick Hart, Collegiate Track and Field Club, Philadelphia	31:58.5
120-yd. hurdles—Milt Campbell, Indiana	0:13.9
220-yd. hurdles—Charles Pratt, N. Y. Pioneer Club	0:23.5
440-yd. hurdles—Josh Culbreath, Morgan State	0:52.0
2-mile steeplechase—Ken Reiser, Eugene (Ore.) Town Club	10:20.7
2-mile walk—Henry H. Laskau, 92d St. Y.M.H.A., New York	15:09.4
Broad jump—Gregory Bell, Terre Haute, Ind.	26 ft. ½ in.
High jump—Ernie Shelton, Los Angeles A. C., and Charles Dumas, Centennial High, Compton, Calif. (tie)	6 ft. 10 in.
Discus—Parry O'Brien, U. S. Air Force	175 ft. 7 in.
56-lb. weight—Bob Backus, New York A. C.	43 ft. 5 in.
Hammer—Harold Connolly, Boston A. A.	199 ft. 8 in.
Hop, step, and jump—Victor Paredes, Cuban National Physical Education Institute	50 ft. 4 in.
Javelin—Franklin Held, Olympic Club, San Francisco	260 ft. 3 in.
Pole vault—Robert Richards, Los Angeles A. C.	15 ft. ½ in.
Shot-put—Parry O'Brien	58 ft. 5¾ in.
Team—New York Athletic Club	111 pts.
All-around—Lyman Frasier, Baltimore	6,733 pts.
Marathon—Nick Costes, Farrell, Pa.	2:31:12.4
Decathlon—Robert Richards	6,873 pts.
Pentathlon—Des Koch, Univ., of So. California	3,216 pts.
440-yd. relay—N. Y. Pioneer Club (Arnold Budd, Thomas Beach, James Gathers, Andy Stanfield)	0:41.5
1-mile relay—N. Y. Pioneer Club (Frank Bowens, Harry Bright, Reginald Pearman, Richard Maiocco)	3:16.0
1⅞-miles relay—Univ. of Chicago Track Club (Ken Stapley, Jim Brown, Bill Conrardy, Phil Coleman)	7:21.1

Senior Indoor

(At Squadron A Armory and Madison Square Garden, New York, Feb. 19)

60 yd.—John Haines, Pennsylvania	0:06.1
600 yd.—Charles Jenkins, Villanova	1:11.9
1,000 yd.—Arnold Sowell, Pittsburgh	2:08.2
Mile run—Wes Santee, Lawrence, Kan.	4:07.9
3 miles—Horace Ashenfelter, New York A. C.	13:54.0
60-yd. high hurdles—Harrison Dillard, Cleveland	0:07.3
Mile walk—Henry H. Laskau, 92d Street Y.M.H.A.	6:30.4
Sprint medley relay (440, 100, 220, 300)—Pioneer Club A team (Frank Bowens, James Ryan, James Gathers, Andy Stanfield)	1:53.8
Mile relay—Morgan State (Herman Wade, Rudy Solomon, James Rogers, Josh Culbreath)	3:18.5
2-mile relay—Syracuse (Bob Miller, Les Vielbig, Steve Armstrong, Don Shupe)	7:39.7
Broad jump—Pvt. Rosslyn Range, Armed Forces	25 ft. 1 in.
High jump—Lieut. J. Lewis Hall, Armed Forces, and Ernie Shelton, Los Angeles (tie)	6 ft. 8¾ in.
Pole vault—Robert Richards, Los Angeles A. C.	15 ft. 4 in.
Shot-put—Lieut. Parry O'Brien, Armed Forces and Los Angeles A. C.	59 ft. 5½ in.
35-lb. weight—Bob Backus, New York A. C.	60 ft. 4½ in.
Team—Pioneer Club, New York	24 pts.

Women's A. A. U. Outdoor

(At Ponca City, Okla., June 17-18)

50 yd.—Isabel Daniels, Tennessee State	0:06.0
100—Mae Faggs, Tennessee State	0:10.8
220—Mae Faggs	0:25.1
80 hurdles—Bertha Diaz, Cuba	0:11.5
440 relay—Tennessee State (Martha Hudson, Lucinda Williams, Isabel Daniels, Mae Faggs)	0:49.1
Broad jump—Mrs. Nancy C. Phillips, German-American A. C., New York	17 ft. 5¾ in.
High jump—Mildred McDaniel, Tuskegee Institute	5 ft. 6½ in.
Discus—Alejandra Ilarra, Cuba	117 ft. 8 in.
Javelin—Karen Anderson, Mercury A. C., Lansdowne, Pa.	150 ft. 1¼ in.
4-kilo. shot-put—Wanda Wejzgrowicz, Polish Falcons, Cleveland	37 ft. 4⅝ in.
Baseball throw—Amelia Wershoven, Equitable Life Assurance Society, New York	249 ft. 1¼ in.
Team—Tennessee State	87½ pts.
Pentathlon—Barbara Mueller, Chicago	3,539 pts.

Women's A. A. U. Indoor

(At Chicago, Feb. 5)

60 meters—Isabel Daniels, Tennessee State	0:07.9
100-m.—Barbara Jones, Chicago Comets	0:12.3
220 yd.—Alfrances Lyman, Chicago Comets	0:26.2
80-m. hurdles—Mrs. Nancy C. Phillips, German-American A. C.	0:12.0
440-yd. relay—Chicago Comets (Hazel Watkins, Alfrances Lyman, Mabel Landry, Barbara Jones)	0:50.5
440-yd. medley relay—Chicago Comets (Margaret Matthews, Mabel Landry, Rebecca Ayars, Barbara Jones)	0:52.8
Standing broad jump—Shirley Hereford, Holland Recreation Club, Cleveland	8 ft. 11¼ in.
High jump—Mildred McDaniel, Tuskegee Institute	5 ft. 2 in.
4-kilo. shot-put—Lois Testa, Red Diamond A. C., Boston	37 ft. 6¾ in.
Basketball throw—Amelia Wershoven, Equitable Life	98 ft. 2 in.
Team—Chicago Comets	34 pts.

NATIONAL COLLEGIATE

(At Los Angeles, June 17-18)

100 yd.—Jim Golliday, Northwestern	0:09.6
220—Jim Golliday	0:21.1
440—J. W. Mashburn, Oklahoma	0:46.4
880—Tom Courtney, Fordham	1:49.5
Mile—Jim Bailey, Oregon	4:05.6
2 miles—Ken Reiser, Oregon	9:04.5
120 hurdles—Milt Campbell, Indiana	0:13.9
220 hurdles—Charles Pratt, Manhattan	0:23.1
Broad jump—Joel Shankle, Duke	24 ft. 3¼ in.
High jump—Ernie Shelton, So. California	6 ft. 11⅛ in.
Discus—Des Koch, So. California	176 ft. ⅜ in.
Javelin—Les Bitner, Kansas	246 ft. 1 in.
Pole vault—Don Bragg, Villanova	15 ft. 1 in.
Shot-put—Bill Nieder, Kansas	57 ft. 3 in.
Team—Southern California	42 pts.

Johnson Betters Decathlon Mark

Rafer Johnson of Kingsburg, Calif., bettered Bob Mathias' world decathlon record by scoring 7,983 points in a meet at Kingsburg on June 10 and 11, 1955. Mathias' mark of 7,887 points was set at the 1952 Olympic Games at Helsinki.

INTERCOLLEGIATE A. A. A.

OUTDOOR

(At Randalls Island, New York, May 27–28)

100 yd.—John Haines, Pennsylvania	0:09.5
220—Art Pollard, Penn State	0:20.8
440—Charles Jenkins, Villanova	0:47.2
880—Arnold Sowell, Pittsburgh	1:49.1
Mile—Burr Grim, Maryland	4:09.9
2 miles—George King, N. Y. U.	9:15.7
120 hurdles—Joel Shankle, Duke	0:14.1
220 hurdles—Charles Pratt, Manhattan	0:23.0
Mile relay—Villanova (James Moran, Eugene Maliff, Al Peterson, Charles Jenkins)	3:15.2
Broad jump—Joel Shankle	24 ft. 8 in.
High jump—Wilfred Lee, Pennsylvania	6 ft. 6½ in.
Discus—Roosevelt Grier, Penn State	170 ft. 6 in.
Hammer—Don Seifert, Brown	186 ft. 10 in.
Javelin—Al Cantello, La Salle	228 ft. 8½ in.
Pole vault—Don Bragg, Villanova	14 ft. 6 in.
Shot-put—Roosevelt Grier	55 ft. 11 in.
Team—Manhattan	38 pts.

INDOOR

(At Squadron A Armory and Madison Square Garden, New York, Feb. 26)

60 yd.—John Haines, Pennsylvania	0:06.3
600—Charles Jenkins, Villanova	1:11.2
1,000—Arnold Sowell, Pittsburgh	2:14.7
Mile—Alex Breckenridge, Villanova	4:19.9
2 miles—George Terry, Boston University	9:16.8
60 high hurdles—Charles Pratt, Manhattan	0:07.4
Mile relay—Pittsburgh (Ed Saunders, Joe Dudas, William Green, Arnold Sowell)	3:19.8
2-mile relay—Syracuse (Robert Milner, Les Vielbig, Steve Armstrong, Don Shupe)	7:49.1
Broad jump—Bernard Bruce, Boston U.	23 ft. 10¼ in.
High jump—Wilfred Lee, Penn	6 ft. 6 in.
Pole vault—Don Bragg, Villanova, and Dave Seed, California (tie)	14 ft.
Shot-put—Roosevelt Grier, Penn State	53 ft. 4½ in.
35-lb. weight—Stewart Thomson, Yale	58 ft. 11¼ in.
Team—Manhattan	27 pts.

HANDBALL

U. S. H. A. 4-Wall Championships

(At Los Angeles, March 19–26)

Singles—Jimmy Jacobs, Los Angeles A. C.
Doubles—Sam Haber–Ken Schneider, Irving Park Y.M.C.A., Chicago
Masters' doubles—Joe Shane–Alex Boiseree, Los Angeles A. C.
Team—Los Angeles Fire Department

INTERCOLLEGIATE

(Held in December, 1954)

No. 1 singles—Mal Dorfmann, Pennsylvania
No. 2 singles—Don Milazzo, Detroit
Doubles—Don Johnson–Jim Mathis, Texas A. and M.
Team—Detroit

Amateur Athletic Union

SENIOR FOUR-WALL

(At New Haven, Conn., April 16–23)

Singles—Sam Costa, Brooklyn Central Y.M.C.A.
Doubles—Joseph Ingrassia–John Abate, New York A. C.

JUNIOR FOUR-WALL

(At Reading, Pa., Feb. 21–26)

Singles—Sam Costa, Brooklyn Central Y.M.C.A.
Doubles—James Emas–Mal Dorfman, Germantown Y.M.C.A., Philadelphia

SENIOR ONE-WALL

(At Brooklyn, May 9–22)

Singles—Harold Hanft, Rockaway H. C., New York
Doubles—Oscar and Rubrecht Obert, McBurney Y.M.C.A., New York

Y. M. C. A.

Singles—John Sloan, Irving Park, Chicago
Doubles—John Sloan–Phil Collins, Irving Park

Baugh Top Passer

Sammy Baugh, a quarterback for the Washington Redskins from 1937 through 1952, holds the all-time National Football League passing record with 1,709 completions.

BADMINTON

Malaya won the Thomas Cup, emblematic of world team supremacy in badminton, by routing Denmark, 8 matches to 1, in the 1955 final at Singapore in June. The Malayans are unbeaten in the trophy competition, which started in 1949. They defeated Denmark in the last round that year and turned back the United States in the 1952 final.

All-England Championships

(At London, March 23–26)

Singles—Wong Peng Soon, Malaya
Women's singles—Margaret Varner, United States
Doubles—Finn Kobbero–Hammergaard Hansen, Denmark
Women's doubles—Iris Cooley–June White, England
Mixed doubles—Finn Kobbero–Kirsten Thorndahl, Denmark

United States Open

(At Long Beach, Calif., April 6–9)

Singles—Joseph Alston, South Pasadena, Calif.
Women's singles—Margaret Varner, Boston
Doubles—Wynn Rogers, Arcadia, Calif.–Joseph Alston
Women's doubles—Judith and Susan Devlin, Baltimore
Mixed doubles—Dorothy Hann, Los Angeles–Wynn Rogers

JUNIOR

(At Cleveland, April 2–4)

Boys' singles—John Kevorkian, Jr., Watertown, Mass.
Girls' singles—McGregor Stewart, Baltimore
Boys' doubles—Gary McFarlane, Lewiston, N. Y.–John Kevorkian
Girls' doubles—Norma Slauer–Nancy Metcalf, Marblehead, Mass.
Mixed doubles—John Kevorkian, Jr.–Norma Slauer

Canadian

Singles—Don Smythe, Toronto
Women's singles—Jean Wearing, Calgary

Holm Wins Badminton Title

Poul Holm of Montreal captured the world professional badminton championship by defeating Stan Cutts of Montreal 15–2, 15–3, in April of 1955.

INTERCOLLEGIATE CONFERENCE TEAM CHAMPIONS

NATIONAL COLLEGIATE

Source: Walter Byers, Executive Director, N.C.A.A.

Baseball—Wake Forest
Basketball—San Francisco
Boxing—Michigan State
Fencing—Columbia
Golf—Louisiana State
Gymnastics—Illinois
Ice Hockey—Michigan
Skiing—Denver
Swimming—Ohio State
Tennis—Southern California
Track and Field—Southern California
Wrestling—Oklahoma A. and M.

(For N.C.A.A. individual champions see index.)

E. C. A. C.

Source: George L. Shiebler, Administrative Assistant, Eastern College Athletic Conference.

Eastern Baseball League—Yale
Ivy Basketball League—Princeton

Fencing

INTERCOLLEGIATE ASSOCIATION

Three-weapon—Cornell
Foil—Navy
Epee—Columbia
Saber—Columbia

Golf

Eastern Association—Yale

Gymnastics

Eastern League—Penn State

Ice Hockey

Ivy League—Harvard

Rowing

INTERCOLLEGIATE ASSOCIATION

Varsity—Cornell
Junior varsity—Cornell
Freshman—Cornell

ASSN. OF ROWING COLLEGES

Varsity—Pennsylvania
Junior varsity—Cornell
Freshman—Cornell
Lightweight varsity—Pennsylvania
Lightweight junior varsity—Cornell
Lightweight freshman—Yale

Swimming

Eastern League—Yale

Tennis

Eastern Association—Yale

Track and Field

Heptagonal Games Assn.—Cornell
I. C. A. A. A. A.—Manhattan
Metropolitan (N. Y.) Assn.—Manhattan
Middle Atlantic Assn.—St. Joseph's

INDOOR

Heptagonal Games Assn.—Cornell
I. C. A. A. A. A.—Manhattan
Metropolitan (N. Y.) Assn.—Manhattan

Wrestling

Eastern Association—Pittsburgh

(For E.C.A.C. individual champions see index.)

PACIFIC COAST

Baseball—Southern California
Basketball—Oregon State
Golf—Washington (No. Div.); Stanford (So. Div.)
Gymnastics—Southern California (Southern Division)
Swimming—Washington (No. Div.); Stanford (So. Div.)
Tennis—Washington (No. Div.); So. California (So. Div.)
Track—Southern California
Water Polo—California and So. California (Southern Division)

BIG TEN

Baseball—Ohio State
Basketball—Iowa
Fencing—Wisconsin
Golf—Purdue
Gymnastics—Illinois
Swimming—Ohio State
Tennis—Michigan
Track (indoor and outdoor)—Michigan
Wrestling—Michigan

ATLANTIC COAST

Baseball—Wake Forest
Basketball—North Carolina State
Golf—Wake Forest
Lacrosse—Maryland
Swimming—North Carolina State
Tennis—North Carolina
Track (indoor)—North Carolina
Track (outdoor)—North Carolina
Wrestling—Maryland

SOUTHWEST

Baseball—Texas A. & M.
Basketball—Southern Methodist
Fencing—Texas A. & M.
Golf—Southern Methodist
Swimming—Texas
Tennis—Texas
Track—Texas

SOUTHERN

Baseball—West Virginia
Basketball—West Virginia
Golf—Washington and Lee
Swimming—V. M. I.
Tennis—Davidson
Track (indoor and outdoor)—V. M. I.
Wrestling—V. P. I.

SOUTHEASTERN

Baseball—Alabama
Basketball—Kentucky
Golf—Florida
Swimming—Georgia
Tennis—Tulane
Track—Auburn

MISSOURI VALLEY

Baseball—Oklahoma A. & M. and St. Louis (tie)
Basketball—Tulsa and St. Louis (tie)
Golf—Oklahoma A. & M.
Tennis—Houston
Track—Oklahoma A. & M.

BIG SEVEN

Baseball—Oklahoma
Basketball—Colorado
Golf—Colorado and Oklahoma (tie)
Swimming—Oklahoma
Tennis—Oklahoma
Track (indoor and outdoor)—Kansas
Wrestling—Oklahoma

CURLING

Rinks representing the Canadian Branch of the Royal Caledonian Curling Club defeated members of the Grand National Curling Club of America, 603 to 373, in the 1955 competition between the United States and the Dominion for the Gordon International Medal at Montreal. The triumph was the fortieth for the Canadians in the annual event. The U. S. has won 20 matches.

Other 1954-55 Winners

(Skips in parentheses)

Midwest Championship—Hibbing, Minn. (Fran Kleffman)
Northwest Championship—Superior, Wis. (Ray Somerville)
Women's U. S. Championship—Wauwatosa (Wis.) Granitas (Mrs. Erwin Nell)
Midwest Assn. Bonspiel (Duluth)—Duluth, Minn. (Ed Nicoliason)

DETROIT INTERNATIONAL BONSPIEL

Grand Aggregate—Wauwatosa, Wis. (Luke Collins)

MANITOBA BONSPIEL (AT WINNIPEG)

Grand Aggregate—Manitou, Man. (Bill Sharpe)
British Consols Trophy—Strathcona C. C., Winnipeg (Bill Sharpe)

QUEBEC INTERNATIONAL BONSPIEL

International Championship—Club Jacques-Cartier, Quebec (G. Amyot)
Seagram's Grand Aggregate—Bathurst, N. B. (Charles McArdle)
Chateau International—Etchemin Club, St. Romuald, P. Q. (N. Lemelin)
Omega International—Bathurst (Charles McArdle)
Francois Jobin Gold Cup—Bathurst (R. A. Archibald)

1955 Canadian Championship

(At Regina, Saskatchewan)

FINAL STANDING OF THE RINKS

	W.	L.		W.	L.
*Saskatchewan	10	0	Prince Ed. Island	4	6
Manitoba	9	1	Alberta	4	6
Ontario	7	3	New Brunswick	2	8
Northern Ontario	6	4	Newfoundland	1	9
British Columbia	6	4	Quebec	1	9
Nova Scotia	5	5			

* Avonlea (Garnet Campbell, skip; Donald Campbell, Glen Campbell, Lloyd Campbell).

Campbell Rink Takes Match

The Campbell Brothers rink of Avonlea, Sask., which won the Canadian championship in 1955, beat the Midwest Curling Association's titleholders, the Fran Kleffman quartet of Hibbing, Minn., in a match for the unofficial North American crown. The Dominion swept the best-two-out-of-three series at Hibbing by 5–4 and 9–6.

Johnny Adams Rides No. 3,000

Johnny Adams became the fourth jockey in American racing history to ride 3,000 winners when he triumphed with Mister Black in the seventh race of the Balmoral Jockey Club meeting at Washington Park on May 21, 1955. Johnny Longden, Eddie Arcaro and Ted Atkinson are the other U. S. riders over that mark. The world record is held by Gordon Richards of England, who retired in 1954 with 4,870 winners.

FENCING

Source: Amateur Fencers League of America

United States Champions

(At New York, June 9–17)

Foil—Albert Axelrod, Salle Santelli, New York
Epee—Abram Cohen, Fencers Club, New York
Saber—Richard Dyer, Salle Csiszar, Philadelphia
Women's foil—Mrs. Maxine Mitchell, Hollywood A. C., Los Angeles

TEAM

Foil—Fencers Club (Daniel Bukantz, Jose de Capriles, Harold Goldsmith, Nathaniel Lubell)
Epee—Salle Santelli (Ralph Goldstein, Walter Henry, Pieter Mijer, Paul Moss)
Saber—Salle Santelli (Sol Gorlin, Tibor Nyilas, Alex Treves, George Worth)
Three-weapon—Fencers Club (Daniel Bukantz and Harold Goldsmith, foil; Alfred Skrobisch, epee; Abram Cohen, saber)
Women's team—Salle Santelli (Grace Acel, Anne Drungis, Betty Santelli, Eve Siegel)

National Collegiate

(At East Lansing, Mich., March 25–26)

Foil—Herman Velasco, Illinois
Epee—Donald Tadrawski, Notre Dame
Saber—Barry Pariser, Columbia
Team—Columbia

Intercollegiate Association

(At New York, March 11–12)

Foil—Aubrey Seeman, C. C. N. Y.
Epee—Richard Pew, Cornell
Saber—John Parker, Navy

TEAM

Foil—Columbia
Epee—Cornell
Saber—Columbia
Three-weapon—Cornell

Women's Intercollegiate

Individual—Joanne Monteverde, Fairleigh Dickinson
Team—Rochester Tech

VOLLEYBALL CHAMPIONS

Source: Dr. Harold T. Friermood, United States Volleyball Association.

U. S. Volleyball Association

(At Oklahoma City, May 11–14)

Open—Stockton (Calif.) Y.M.C.A.
Y.M.C.A. Senior—Stockton, Calif.
Intercollegiate—Florida State U.
Armed Forces—Los Alamitos (Calif.) N.A.S.
Y.M.C.A. Veterans'—Central, Houston, Tex.
Women—Santa Monica (Calif.) Mariners

National American Turners

Men (under 30)—Detroit
Men (over 30)—St. Louis
Women (under 30)—Chicago
Women (over 30)—Moline, Ill.

National Jewish Welfare Board

Men—Lynn (Mass.) Jewish Community Center

1955 All-American Selections

FIRST TEAM (Open)—Bud D. Klein, Jack Woods and Louis Wentzel, Stockton (Calif.) Y.M.C.A.; Gene Selznick and Rolf Engen, Hollywood (Calif.) Y.M.C.A. Stars; Alfred Kuhn, Wilson Avenue Y.M.C.A., Chicago.
SECOND TEAM (Open)—Marvin Wigley, Robert Klinger and Don Hall, Stockton Y.M.C.A.; John Brame and James Ward, Hollywood Stars; James Montague, Long Beach (Calif.) Y.M.C.A.

SWIMMING

National A. A. U. Championships

Men's Outdoor

(At Los Angeles, July 20–22)

100-m. free—Hendrik Gideonse, New Haven, S.C..... 0:57.6
200-m. free—Bill Woolsey, unattached, Hawaii..... 2:08.2
400-m. free—Ford Konno, Hawaii S.C..... 4:38.7
1,500-m. free—George Onekea, Jr., Hawaii S.C..... 18:52.3
100-m. back—Yoshinobu Oyakawa, Hawaii S.C..... 1:05.3
200-m. back—Yoshinobu Oyakawa..... 2:26.1
200-m. butterfly—Bill Yorzyk, New Haven S.C..... 2:29.1
200-m. breast—Bob Mattson, North Carolina State... 2:46.8
400-m. medley—George Harrison, Berkeley (Calif.) City Club..... 5:23.3
800-m. free-style relay—New Haven S.C. "A" team (John Phair, Bill Yorzyk, Dave Armstrong, Martin Smith)..... 8:54.2
400-m. medley relay—New Haven S.C. (P. Kennedy, Charles Hardin, Bill Yorzyk, Hendrik Gideonse).... 4:28.6
3-m. dive—Don Harper, Columbus, Ohio..... 597.85 pts
10-m. dive—Gary Tobian, Los Angeles A.C..... 551.10 pts
Team—New Haven Swim Club..... 65 pts
Leading scorer—George Onekea..... 15 pts

Women's Indoor

(At Daytona Beach, Fla., April 7–9)

100-yd. free—Shelley Mann, Walter Reed S. C., Washington, D. C..... 0:58.7
250-yd. free—Shelley Mann..... 2:49.4
500-yd. free—Carol Tait, Santa Clara (Calif.) S. C. 6:01.4
100-yd. back—Coralie O'Connor, Lafayette (Ind.) S. C..... 1:07.8
200-yd. back—Maureen Murphy, Multnomah A. C., Portland, Ore..... 2:27.4
100-yd. butterfly—Betty Mullen, Walter Reed S. C. 1:05.4
250-yd. breast—Mary Jane Sears, Walter Reed S. C. 3:29.8
400-yd. medley—Shelley Mann..... 5:19.7
400-yd. medley relay—Walter Reed S. C. "C" team (Shelley Mann, Mary Jane Sears, Betty Mullen, Wanda L. Werner)..... 4:33.5
400-yd. free-style relay—Walter Reed S. C. "C" team (Betty Mullen, Marie Gillett, Wanda L. Werner, Shelley Mann)..... 4:02.3
1-meter dive—Mrs. Patricia K. McCormick, Los Angeles A. C..... 439.15 pts.
3-meter dive—Mrs. Patricia K. McCormick..... 570.90 pts.
Team—Walter Reed S. C., Washington, D. C..... 95 pts.
Leading scorer—Shelley Mann..... 25 pts.

National Collegiate

(At Oxford, Ohio, March 24–26)

50-yd. free—Kerry Donovan, Yale..... 0:22.8
100-yd. free—Rex Aubrey, Yale..... 0:50.7
220-yd. free—Jack Wardrop, Michigan..... 2:04.2
440-yd. free—Ford Konno, Ohio State..... 4:31.1
1,500-meter free—Ford Konno..... 18:16.1
100-yd. back—Yoshinobu Oyakawa, Ohio State..... 0:58.0
200-yd. back—Yoshinobu Oyakawa..... 2:07.7
200-yd. breast—Robert Mattson, North Carolina State 2:26.0
200-yd. butterfly—Philip Drake, North Carolina..... 2:13.7
150-yd. medley—Albert Wiggins, Ohio State..... 1:26.5
300-yd. medley relay—Ohio State (Yoshinobu Oyakawa, Albert Wiggins, Ed Kawachika)..... 2:42.2
400-yd. free-style relay—Yale (Rex Aubrey, Hendrik Gideonse, Daniel Cornwell, Malcolm Aldrich).... 3:24.9
1-meter dive—Fletcher Gilders, Ohio State..... 535.05 pts.
3-meter dive—Gerry Harrison, Ohio State..... 590.25 pts.
Team—Ohio State..... 90 pts.

Men's Indoor

(At New Haven, March 31–April 2)

100-yd. free—John Glover, New York A. C..... 0:49.8
220-yd. free—Ford Konno, Columbus, Ohio 2:04.0
440-yd. free—Ford Konno..... 4:28.2
1,500-meter free—George Breen, Cortland State Teachers..... 18:52.4
100-yd. back—Yoshinobu Oyakawa, Columbus, Ohio 0:57.2
220-yd. back—Yoshinobu Oyakawa..... 2:22.5
220-yd. butterfly—Eilalio Rios, Mexico..... 2:30.2
220-yd. breast—Robert Gawboy, Minneapolis..... 2:38.0
400-yd. medley—Jack Wardrop, Ann Arbor, Mich. 4:36 9
400-yd. free-style relay—New Haven S. C. "A" team (Dave Armstrong, Hendrik Gideonse, Rex Aubrey, Kerry Donovan)..... 3:21.8
400-yd. medley relay—North Carolina State A. A. (Bob Mattson, Dave McIntyre, Dick Fadgen, Bill Sonner)..... 3:51.5
1-meter dive—Gerry Harrison, Columbus, Ohio 521.85 pts.
3-meter dive—Gerry Harrison..... 576.90 pts.
Team—New Haven Swim Club..... 72 pts.
Leading scorer—Jack Wardrop..... 17 pts.

Women's Outdoor

(At Philadelphia, Aug. 11–14)

100-m. free—Wanda L. Werner, Walter Reed S. C., Washington, D. C..... 1:06.1
400-m. free—Dougie Gray, Walter Reed S. C..... 5:16.1
800-m. free—Carolyn Green, Fort Lauderdale (Fla.) S. A..... 10:54.3
1,500-m. free—Carolyn Green..... 21:15.4
100-m. back—Carin Cone, Ridgewood, N. J..... 1:15.6
200-m. back—Carin Cone..... 2:45.6
100-m. butterfly—Betty Mullen, Walter Reed S. C... 1:15.0
200-m. breast—Mary Jane Sears, Walter Reed S. C.. 3:01.4
400-m. medley—Marie Gillett, Walter Reed S. C..... 6:01.5
400-m. medley relay—Walter Reed S. C. (Shelley Mann, Mary Jane Sears, Betty Mullen, Wanda L. Werner)..... 5:07.0
800-m. free-style relay—Walter Reed S. C. (Shelley Mann, Marie Gillett, Dougie Gray, Wanda L. Werner) 10:10.3
1-m. dive—Mrs. Patricia K. McCormick, Los Angeles A. C..... 446.10 pts.
3-m. dive—Mrs. Patricia K. McCormick..... 525.15 pts.
10-m. dive—Mrs. Juno Stover Irwin, Pasadena (Calif.) A. C..... 262.95 pts.
Team—Walter Reed S. C., Washington, D. C..... 109 pts.
Leading scorer—Dougie Gray..... 21 pts.

Eastern Intercollegiate League

(At New Haven, Conn., March 17–19)

50-yd. free—John Glover, Dartmouth..... 0:22 3
100-yd. free—John Glover..... 0:49.6
220-yd. free—James Jorgensen, Harvard..... 2:08.9
440-yd. free—Bruce Hutchinson, Springfield..... 4:39 9
1,500-meter free—George Breen, Cortland State Teachers..... 19:00.4
100-yd. back—William Sonner, N. C. State..... 0:59.6
200-yd. back—William Sonner..... 2:16.4
200-yd. breast—Robert Mattson, N. C. State..... 2:26.4
200-yd. butterfly—Dave Hawkins, Harvard..... 2:13.8
150-yd. medley—Hendrik Gideonse, Yale..... 1:30.0
300-yd. medley relay—Yale (Hendrik Gideonse, Dave Armstrong, Kerry Donovan)..... 2:48.3
400-yd. free-style relay—Yale (Daniel Cornwell, Malcolm Aldrich, John Niles, Rex Aubrey)..... 3:27.0
1-meter dive—John Whitfield, Yale..... 136.10 pts.
3-meter dive—Chris Keller, Pennsylvania..... 147.93 pts.

ROWING

Source: C. Leverich Brett, Editor, National Association of Amateur Oarsmen Year Book and N.A.A.O. Rowing News.

Intercollegiate Rowing Assn.

Source: C. Leverich Brett, Editor, National Association of Amateur Oarsmen Year Book and N.A.A.O. Rowing News.

(At Syracuse, N. Y., June 18)

Varsity (3 mile)—1, Cornell (15:49.9); 2, Pennsylvania; 3, Navy; 4, Washington; 5, Stanford; 6, California; 7, Boston U.; 8, Princeton; 9, Wisconsin; 10, M.I.T.; 11, Columbia; 12, Syracuse.
Junior Varsity (3 miles)—1, Cornell (16:23.2); 2, Pennsylvania; 3, Navy; 4, Washington; 5, Princeton; 6, California; 7, Syracuse; 8, Wisconsin; 9, Columbia.
Freshman (2 miles)—1, Cornell; (10:33.1); 2, Washington; 3, M.I.T.; 4, Navy; 5, Princeton; 6, Pennsylvania; 7, Columbia; 8, Syracuse; 9, Wisconsin.
Jim Ten Eyck Trophy—Cornell (20 pts.)

Assn. of Rowing Colleges

(At Washington, D. C., May 14—2,000 meters)

Varsity—Pennsylvania (6:00.6)
Junior Varsity—Cornell (6:06.1)
Freshman—Harvard (6:08.7)
Rowe Cup—Cornell (18 points)

LIGHTWEIGHT

(At Cambridge, Mass.—1 5/16 miles)

Varsity (Wright Trophy)—Penn. (6:42.4)
Junior Varsity—Cornell (6:44.1)
Freshman—Yale (6:59.2)

Yale-Harvard

(At New London, Conn., June 17)

Varsity (4 miles)—Yale (20:05)
Junior Varsity (2 miles)—Yale (9:53.4)
Freshman (2 miles)—Yale (9:40)

Other Winners

Adams Cup (1¼ miles)—Penn (8:47.7)
Blackwell Cup (2 miles)—Penn (10:40.4)
Carnegie Cup (1¼ miles)—Cornell (8:41.4)
Childs Cup (1 5/16 miles)—Penn (6:36.6)
Compton Cup (1¼ miles)—Harvard (8:56.4). Wisconsin won race in 8:55.3, but was not eligible to compete for the cup. Harvard finished second.
Dad Vail Trophy (1 5/16 miles)—Dartmouth R. C. (6:44.3)
Florida State Championship (1 1/8 miles)—Rollins (6:08.2)
Goes Trophy (1¼ miles)—Navy (8:55)
Oxford–Cambridge (4¼ miles)—Cambridge (19:10)
Penn–Cornell (2 1/3 miles)—Penn (12:06.2)
Washington–California (2¼ miles)—Washington (14:29)
Western Sprint (2,000 meters)—Navy (6:44.5)

150 POUNDS

Goldthwait Cup (1 5/16 miles)—Princeton (7:06.4)
Wood-Hammond Cup (1 5/16 miles)—Princeton (7:46.5)

NATIONAL INTERSCHOLASTIC

8-oared shell (1 mile)—St. Joseph's School, Philadelphia (5:15)
Single sculls—Jon Robert Pearse, Hamilton, Ont.

British Royal Henley

Diamond Sculls—Teodor Kocherka, Poland
Grand Chalange Cup—Univ. of Pennsylvania
Thames Challenge Cup—Massachusetts Institute of Technology
Silver Goblets (pairs)—Ivan Buldakov–Vicor Ivanov, Russia
Stewards Cup (fours)—Krylia Club, Russia
Double sculls—G. Zhilin–J. Emchuk, Russia

Canadian Henley

Singles sculls—John B. Kelly, Jr.
8-oared shell—West Side R.C.
Team—St. Catharines (Ont.) R.C. (315¼ pts.)

United States Championships

(At Philadelphia, July 16–17)

(Distances 2,000 meters except sprints)

Single sculls—John B. Kelly, Jr., Vesper B. C. Philadelphia	7:39.0
Assn. single sculls—Thomas McDonough, Fairmount R.A., Philadelphia	8:03.4
¼-mile single sculls—William Knecht, Vesper B.C.	1:20.0
Double sculls—Walter Hoover, Jr.–James McIntosh, Detroit B.C.	7:30.5
Quadruple sculls—Vesper B.C.	6:35.6
Pair-oared shell without coxswain—Robert and Ambrose Callahan, New York A.C.	7:45.0
Pair-oared shell with coxswain—Fairmount R.A. (T. McDonough–J. Kieffer and J. Hasiak, coxswain)	8:40.0
4-oared shell with coxswain—West Side R.C., Buffalo	7:25.0
4-oared shell without coxswain—West Side R.C.	6:57.0
8-oared shell—Vesper B.C.	6:25.4
Intermediate 8-oared shell—Vesper B.C.	6:58.2
150 lb. single sculls—Tom Smith, Leander B.C., Hamilton, Ont.	8:08.0
150-lb. ¼-mile single sculls—Rudy Jezek, New York A.C.	1:17.2
150-lb. double sculls—Tom Darcy–Tom Langan, Penn A.C., Philadelphia	7:42.0
150-lb. quadruple sculls—Vesper B.C.	7:18.0
150-lb. 4-oared shell with coxswain—West Side R.C.	7:39.0
150-lb. 4-oared shell without coxswain—West Side R.C.	6:57.0
150-lb. 8-oared shell—West Side R.C.	6:45.0
Team (Barnes Trophy)—Vesper Boat Club	149 pts.

GYMNASTICS

National A. A. U. Championships

(At Rochester, N. Y., April 29–30)

	Pts.
All-around—Karl Schwenzfeier, Penn State, and John Miles, Florida State Gymkana (tie)	327.0
Free calisthenics—John Beckner, U. S. Army	56.7
Horizontal bar—Abie Grossfeld, West Side Y.M.C.A., New York	56.2
Long horse—John Miles	55.4
Parallel bars—Edward Scrobe, St. Mary's Recreation Center, New York	56.7
Rope climb—Robert Hammond, U. C. L. A.	3.2 s.
Side horse—James Bown, Los Angeles State Coll. Gym Club	55.3
Still rings—John Miles	56.4
Swinging rings—Samuel Baille, University of Iowa	28.8
Trampoline—Robert Elliott, Maverick Boys' Club, Amarillo, Texas	27.8
Tumbling—James Sebbo, Jersey City Dept. of Recreation	28.1
Team—Florida State Gymkana, Tallahassee	41¼

WOMEN

All-around—Ernestine Russell, Windsor (Ont.) Gym Club	227.0
Balance beam—Ernestine Russell	56.6
Free calisthenics—Ernestine Russell	57.1
Flying rings—Doris Fuchs, C. Y. O., Rochester, N. Y.	54.0
Parallel bars—Ernestine Russell	55.6
Side horse—Ernestine Russell	57.7
Tumbling—Barbara Galleher, Dallas A. C.	28.1

National Collegiate

(At Los Angeles, March 25–26)

All-Around—Karl Schwenzfeier, Penn State	1,620
Flying rings—George Wikler, So. California	286
Free exercise—Don Faber, U. C. L. A.	286
Horizontal bar—Carlton Rintz, Michigan State	284
Parallel bars—Carlton Rintz	283
Rope climb—Robert Hammond, U. C. L. A.	3.1s.
Side horse—Carlton Rintz	286
Trampoline—Richard Albershardt, Indiana	284
Tumbling—Lloyd Cochran, So. California	277
Team—Illinois	82

Kerry Wins Irish Title

Kerry beat Dublin, 12 points to one goal and 6 points (9 points), in the All-Ireland Gaelic football final in 1955.

N. A. I. A. Champions

(National Association of Intercollegiate Athletics)

Basketball—East Texas State Teachers, Commerce
Golf—North Texas State, Denton
Tennis—Lamar State, Beaumont, Tex.
Track—Abilene (Tex.) Christian

GOLF

Championships

U. S. Open (at San Francisco)—Jack Fleck, Davenport, Iowa (beat Ben Hogan, 69 to 72, in play-off) 287
British Open (St. Andrews, Scotland)—Peter Thomson, Melbourne, Australia 281
*World Open—Julius Boros, Southern Pines, N. C. 281
*All-American Open—Doug Ford, Yonkers, N. Y. 277
*World Amateur—Doug Sanders Cedartown, Ga. 284
*All-American Amateur—Doug Sanders 286
French Open—Byron Nelson, Roanoke, Tex. 271
Mexican Open—Roberto de Vicenzo, Argentina 271
Australian Open—Bobby Locke, South Africa .. 290
U. S. Seniors—John W. Roberts, Columbus, Ohio (beat Roy Moore, 78 to 79, in play-off) .. 148

WOMEN

U. S. Open—Fay Crocker, Uruguay 299
*World Open—Patty Berg, St. Andrews, Ill. 298
*All-American Pro—Patty Berg 302
*World Amateur—Wiffi Smith, St. Clair, Mich. 309
*All-American Amateur—Wiffi Smith 312
Western Open—Patty Berg 292
Eastern Pro—Louise Suggs, Atlanta 291
Eastern Amateur—Mary Ann Downey, Baltimore 230
Titleholders—Patty Berg 291
Triangle Round-Robin—Louise Suggs ..... 44 pts.
Babe Zaharias Open—Betty Jameson, San Antonio, Tex. 210
Canadian Amateur Closed—Marlene Stewart, Fonthill, Ont. 223

* At Tam O'Shanter.

Match Play

U. S. Amateur (at Richmond, Va.)—Harvie Ward, San Francisco, beat Bill Hyndman, Jenkintown, Pa., in final, 9 and 8
National P. G. A. (at Northville, Mich.)—Doug Ford beat Cary Middlecoff, Memphis, in final, 4 and 3
British Amateur—Lieut. Joe Conrad, San Antonio, Tex.
French Amateur—Henri de La Maze, France
U. S. Public Links—Sam Kocsis, Detroit
U. S. Junior—William Dunn, Duncan, Okla.
National Collegiate—Joe Campbell, Purdue
Trans-Mississippi—Jimmy Jackson, St. Louis
North-South Amateur—Don Bisplinghoff, Orlando, Fla.
Southern Amateur—Charlie Harrison, Atlanta
Western Amateur—Eddie Merrins, Meridian, Miss.
Canadian Amateur—Moe Norman, Kitchener, Ont.

WOMEN

U. S. Amateur (Charlotte, N. C.)—Patricia Lesser, Seattle, beat Jane Nelson, Indianapolis, in final, 7 and 6
British Open Amateur—Jessie Valentine, Scotland
Western Amateur—Patricia Lesser
Southern Amateur—Mrs. Scott Probasco, Chattanooga
North-South Amateur—Wiffi Smith
Canadian Amateur Open—Marlene Stewart
Ladies' P. G. A.—Beverly Hanson, Indio, Calif.
National Intercollegiate—Jackie Yates, Redlands
U. S. Junior—Carole Jo Kabler, Roseburg, Ore.

Team

Walker Cup (amateurs)—U. S. 10, Great Britain 2, at St. Andrews, Scotland
Hopkins Trophy (pros)—U. S. 17, Canada 10
Canada Cup (pros)—Ed Furgol (279) and Chick Harbert (281), U. S.
U. S. Public Links (Harding Trophy)—Miami, Fla. (Joe San Filippo, 72; Marshall Carlson, 75; Ralph Allen, 77)
National Collegiate—Louisiana State, 574 pts.
Devonshire Cup (seniors)—U. S. 37, Canada 8
Griscom Cup (women)—Philadelphia 26 1/2, New York 24, Boston 12 1/2

Nashua Takes Match Race

A race between a pair of 3-year-olds, William Woodward, Jr.'s Nashua, the champion of the East, and Rex C. Ellsworth's Swaps, the top performer in the West, was an outstanding event in horse racing in 1955. Nashua, ridden by Eddie Arcaro, beat Swaps, piloted by Willie Shoemaker, by 6½ lengths in the $100,000 winner-take-all event at Washington Park on Aug. 31. The victor's time for the mile-and-a-quarter contest was 2:04⅕.

OTHER P. G. A. WINNERS

	Score
Los Angeles Open—Gene Littler	276
Bing Crosby Invitation—Cary Middlecoff	209
San Diego Open—Tommy Bolt	274
Palm Springs Invitation—Shelley Mayfield	(a)270
Brawley Open—Mike Fetchick	266
Phoenix Open—Gene Littler	275
P. G. A. Seniors—Mortie Dutra	213
Tucson Open—Tommy Bolt	266
Texas Open—Mike Souchak	264
Houston Open—Mike Souchak	273
Baton Rouge Open—Bo Wininger	(b)278
St. Petersburg Open—Cary Middlecoff	274
Seminole Pro-Amateur—Mike Souchak	139
Miami Beach Open—Eric Monti	270
Azalea Open—Billy Maxwell	270
Masters—Cary Middlecoff	279
Greater Greensboro Open—Sam Snead	273
Virginia Beach Open—Chandler Harper	260
Tournament of Champions—Gene Littler	280
Colonial Invitation—Chandler Harper	276
Hot Springs Open—Bo Wininger	270
Greenbrier Open—Dutch Harrison	269
Kansas City Open—Dick Mayer	271
Fort Wayne Open—Dow Finsterwald	269
Palm Beach Round-Robin—Sam Snead	46 pts.
International Championship—Ed Furgol	(c)279
Western Open—Cary Middlecoff	272
British Columbia Open—Dow Finsterwald	270
St. Paul Open—Tommy Bolt	269
Miller Open—Cary Middlecoff	265
Rubber City Open—Henry Ransom	272
Canadian Open—Arnold Palmer	295
Labatt's Open—Gene Littler	(d)272
Insurance City Open—Sam Snead	269
Cavalcade of Golf—Cary Middlecoff	276
Phila. Open—Ted Kroll	(e)273
Sponsors—Doug Ford	276

(a) Beat Mike Souchak in sudden-death play-off after Fred Haas, Jr. had been eliminated in first play-off. (b) Beat Jimmy Clark and Billy Maxwell in play-off. (c) Beat Flory Van Donck and Peter Thomson in sudden-death play-off. (d) Beat Stan Leonard in play-off. (e) Beat Doug Ford in extra-hole play-off.

HORSE RACING

U. S. STAKES WINNERS

	Win value
American Derby—Swaps	$ 89,600
Arlington Classic—Nashua	91,675
Arlington Lassie—Judy Rullah	67,335
Arlington Futurity—Swoon's Son	88,140
Arlington Handicap—Platan	104,650
Belmont Futurity—Nail	100,425
Belmont Stakes—Nashua	83,700
Blue Grass—Racing Fool	22,112
Brooklyn—High Gun	37,900
Carter—Bobby Brocato	43,000
Coaching Club American Oaks—High Voltage	45,800
Delaware Handicap—Parlo	99,900
Delaware Oaks—High Voltage	37,040
Dwyer—Nashua	37,200
Flamingo—Nashua	104,600
Florida Derby—Nashua	100,000
Garden State—Prince John	157,918
Golden Gate Handicap—Alidon	29,325
Hawthorne Gold Cup—Hasseyampa	55,200
Hollywood Gold Cup—Rejected	100,000
Hopeful—Needles	50,000
Jersey—Dedicate	44,700
John B. Campbell Memorial—Social Outcast	56,600
Kent—Westward Ho	25,250
Kentucky Derby—Swaps	108,400
Kentucky Oaks—Lalun	21,350
Ladies Handicap—Manotick	43,900
Louisiana Derby—Roman Patrol	34,175
Leonard Richards—Saratoga	35,500
Massachusetts—Helioscope	36,000
McLennan—Social Outcast	50,600
Metropolitan—High Gun	25,500
Monmouth Handicap—Helioscope	56,400
Monmouth Oaks—Misty Morn	43,700
New Orleans—Sea O Erin	44,300
Preakness—Nashua	67,500
Princess Pat—Supple	57,710
San Juan Capistrano—St. Vincent	69,800
Santa Anita Derby—Swaps	90,400
Santa Anita Maturity—Miz Clementine	87,000
Santa Anita Handicap—Poona II	103,200
Saratoga Handicap—Social Outcast	37,600
Saratoga Special—Polly's Jet	15,250
Starlet—Bold Bazooka	47,200
Suburban—Helioscope	61,150
Travers—Thinking Cap	19,150
United Nations—Blue Choir	74,600
Washington Park Handicap—Jet Action	96,000
Washington Park Futurity—Swoon's Son	91,405
Widener—Hasty Road	95,600
Wood Memorial—Nashua	76,100

PAN-AMERICAN GAMES CHAMPIONSHIPS

(At Mexico City, March 12-26)

Track and Field

100 meters—Rodney Richards, U. S.	0:10.3
200 m.—Rodney Richards	0:20.7
400 m.—Louis Jones, U. S.	0:45.4
800 m.—Arnold Sowell, U. S.	1:49.7
1,500 m.—Juan Miranda, Argentina	3:53.2
5,000 m.—Osvaldo Suarez, Argentina	15:30.6
10,000 m.—Osvaldo Suarez	32:42.6
3,000 m. steeplechase—Guillermo Sola, Chile	9:46.8
Marathon—Doroteo Flores, Guatemala	2:59:09.2
110-m. hurdles—Jack Davis, U. S.	0:14.3
400-m. hurdles—Josh Culbreath, U. S.	0:51.5
Broad jump—Rosselyn Range, U. S.	26 ft. 4¼ in.
High jump—Ernie Shelton, U. S.	6 ft. 7⅛ in.
Discus—Fortune Gordien, U. S.	174 ft. 2½ in.
Hammer—Robert Backus, U. S.	180 ft. 1¾ in.
Hop, step and jump—Adhemar da Silva, Brazil	54 ft. 4 in.
Javelin—Franklin Held, U. S.	228 ft. 11⅞ in.
Pole vault—Robert Richards, U. S.	14 ft. 9½ in.
Shot-put—Parry O'Brien, U. S.	57 ft. 8½ in.
Decathlon—Rafer Johnson, U. S.	6,994 pts.
400-m. relay—United States (Willie Williams, John Bennett, Charley Thomas, Rodney Richards)	0:40.7
1,600-m. relay—United States (Jesse Mashburn, Lon Spurrier, Jim Lea, Lou Jones)	3:07.2

WOMEN

60 m.—Bertha Diez, Chile	0:07.5
100-m.—Barbara Jones, U. S.	0:11.5
80-m. hurdles—Eliana Gaete, Chile	0:11.7
High jump—Mildred McDaniel, U. S.	5 ft. 6¼ in.
Discus—Ingeborg Pfuller, Argentina	141 ft. 8½ in.
Javelin—Karen Anderson, U. S.	161 ft. 1½ in.
400-m. relay—United States (Isabelle Daniels, Mabel Landry, Mae Faggs, Barbara Jones)	0:47.0

Swimming

100-m. free—Clarke Scholes, U. S.	0:57.7
400-m. free—Jimmy McLane, U. S.	4:51.3
1,500-m. free—Jimmy McLane	20:04.0
100-m. back—Frank McKinney, Jr., U. S.	1:07.1
200-m. butterfly—Eulalio Rios, Mexico	2:39.8
200-m. breast—Hector Dominguez, Argentina	2:46.9
400-m. medley relay—United States (Frank McKinney, Jr., Fred Maguire, Buddy Baarcke, Clarke Scholes)	4:29.1
800-m. relay—United States (Martin Smith, Bill Yorzyk, Wayne Moore, Jimmy McLane)	9:00.6
3-m. dive—Joaquin Capilla, Mexico	175.76 pts.
10-m. dive—Joaquin Capilla	172.33 pts.

WOMEN

100-m. free—Helen Stewart, Canada	1:07.7
200-m. free—Wanda Lee Werner, U. S.	2:32.5
400-m. free—Beth Whittall, Canada	15:32.4
100-m. butterfly—Beth Whittall	1:16.2
100-m. back—Lenore Fisher, Canada	1:16.7
200-m. breast—Mary Lou Elsenius, U. S.	3:08.4
400-m. relay—United States (Gretchen Kluter, Carolyn Green, Judy Roberts, Wanda Lee Werner)	4:31.8
400-m. medley relay—United States (Coralie O'Connor, Mary Jane Sears, Betty Mullen, Wanda Lee Werner)	5:11.6
3-m. dive—Mrs. Patricia K. McCormick, U. S.	142.23 pts.
10-m. dive—Mrs. Patricia K. McCormick	94.05 pts.

SYNCHRONIZED SWIMMING

	Pts.
Individual—Mrs. Beulah Gundling, U. S.	94.000
Duets—United States (Ellen Richards-Connie Todoroff)	91.857
Team—United States (Athens Water Follies, Oakland, Calif.)	93.928

Tennis

Singles—Art Larsen, U. S.
Women's singles—Rosa Maria Reyes, Mexico
Doubles—Gustavo Palafox-Mario Llamas, Mexico
Women's doubles—Rosa Maria Reyes-Ester Reyes, Mexico
Mixed doubles—Yolanda Ramirez-Gustavo Palafox, Mexico

Cycling

Kilometer scratch race—Jorge Batls, Argentina
1,000 meters—Antony Di Michelli, Venezuela 1:09.8
4,000-meter pursuit—Argentina 4:43.2
175-kilometer—Raymon Hoyos, Colombia 4:33.01

Gymnastics

	Pts.
All-around—John Beckner, U. S.	113.40
Calisthenics—John Beckner	18.80
Horizontal bar—Abie Grossfeld, U. S.	19.60
Indian club swinging—Francisco Alvarez, Mexico	9.40
Long horse—Joseph Kotys, U. S.	19.45
Parallel bars—John Beckner and Richard Beckner, U. S. (tie)	19.30
Rope climb—Donald Perry, U. S.	2.9 s.
Side horse—John Beckner	19.45
Still rings—Richard Beckner, U. S.	19.05
Trampoline—Donald Harper, U. S.	9.90
Tumbling—William Rey, U. S.	9.60

TEAM

All-around—United States	567.60
Calisthenics—United States	92.15
Horizontal bar—United States	96.75
Long horse—United States	95.85
Parallel bars—United States	95.45
Side horse—United States	94.75
Still rings—United States	92.65

Boxing

Flyweight (112 lb.)—Hilario Correa, Mexico
Bantamweight (119)—Salvador Jesus Enriquez, Venezuela
Featherweight (126)—Oswaldo Canete Insfran, Argentina
Lightweight (132)—Miguel Pendola Silva, Argentina
Light Welterweight (140)—Juan Rivero Fernanzde, Argentina
Welterweight (147)—Joey Dorando, U. S.
Light-Middleweight (156)—Paul Wright, U. S.
Middleweight (165)—Orville Pitts, U. S.
Light-Heavyweight (178)—Luis Ignacio, Brazil
Heavyweight—Pablo Miteff Ochoa, Argentina

Wrestling

Flyweight—Manuel Vavela, Argentina
Bantamweight—Jack Blubaugh, U. S.
Featherweight—Omar Bledel, Argentina
Lightweight—Jay T. Evans, U. S.
Welterweight—Longarela, Argentina
Middleweight—Leon Genuth, Argentina
Light-Heavyweight—Alfred Paulekas, U. S.
Heavyweight—William Kerslake, U. S.

Weight Lifting

	Total
Bantamweight (123 lb.)—Charles Vinci, U. S.	661
Featherweight (132)—Carlos Chavez, Panama	732½
Lightweight (148)—Joe Pitman, U. S.	782¼
Middleweight (165)—Pete George, U. S.	892¾
Light heavyweight (181)—Tommy Kono, U. S.	964½
Middle heavyweight (198)—Dave Sheppard, U. S.	876
Heavyweight—Norbert Schemansky, U. S.	1,041¼

Shooting

Skeet—Kenneth Pendergras, U. S.
.22-caliber rifle—Arthur Jackson, U. S.
.22-caliber rifle (3-position)—Pedro Armella, Argentina
Rapid fire at silhouettes—Carlos Valiente, Argentina
25-meter pistol—Sgt. Huelet Benner, U. S.
300-meter (3-position)—Pedro Armella
Team 300-meter (3-position)—United States
Individual military rifle (300 meters)—R. Hagen, Argentina
Team military rifle (300 meters)—Chile

Rowing

(1,312-yard course)

Single sculls—John B. Kelly, Jr., U. S.	4:28.5
Doubles sculls—United States (Walter Hoover, Jr.-James Gardiner)	4:35.1
Pairs without coxswain—Argentina	4:15.5
Pairs with coxswain—Argentina	5:10.1
Fours without coxswain—Argentina	4:21.5
Fours with coxswain—Argentina	4:01.1
Eights—United States (Vesper B. C., Philadelphia)	4:00.2

Fencing

INDIVIDUAL

Foil—Harold Goldsmith, U. S.
Epee—Raul Martinez, Argentina
Sabers'—Antonio Haro Oliva, Mexico
Women's Foil—Mrs. Maxine Mitchell, U. S.

TEAM

Foil—Argentina Epee—Argentina Saber—U. S.

Pan-American Games (Contd.)

Equestrian

Dressage—Capt. Hector Clavel, Chile
Cavalry and hunter—Walter Staley, U. S.
Steeplechase—Lieut. Carlos de la Serna, Argentina
Prix des Nations—Mexico

Pentathlon

Individual—Jose Perezmier, Mexico
Team—Mexico

Baseball

Team—Dominican Republic

Basketball

Men—United States
Women—United States

Soccer

Team—Argentina

Volleyball

Men—United States
Women—Mexico

Water Polo

Team—Argentina

Unofficial Team Scores

Scoring based on 10 points for each first place, 5 for second, 4 for third, 3 for fourth, 2 for fifth and 1 for sixth.

	Pts.		Pts.
United States	1,434½	Guatemala	22
Argentina	574½	Dominican Republic	20
Mexico	450	Jamaica	19
Venezuela	155	Panama	15
Chile	154	Trinidad	9½
Brazil	138½	El Salvador	5
Cuba	131	Paraguay	4
Canada	109	Costa Rica	0
Colombia	45	The Bahamas	0
Uruguay	42½	Haiti	0
Puerto Rico	33½		
Dutch West Indies	29½		

TABLE TENNIS

Source: Peter W. Roberts, U.S. Table Tennis Association

World Championships

(At Utrecht; The Netherlands, April 15–24)

Singles—Tashiaki Tanaka, Japan
Women's singles—Mrs. Angelica Rozeanu, Rumania
Doubles—Ivan Andreadis–Ladislav Stipek, Czechoslovakia
Women's doubles—Mrs. Angelica Rozeanu–Ella Zeller, Rumania
Mixed doubles—Kalman Szepesi–Eva Koczian, Hungary
Men's team—(Swaying Cup)—Japan
Women's team (Corbillon Cup)—Rumania

English Open

(At Wembley, March 29–April 2)

Singles—Zarko Dolinar, Yugoslavia
Women's singles—Rosalind Rowe, England
Doubles—Ivan Andreadis–Ladislav Stipek, Czechoslovakia
Women's doubles—Rosalind and Diane Rowe, England
Mixed doubles—Aubrey Simson, England–Helen Elliot, Scotland

U. S. Open

(At Rochester, N. Y., March 18–20)

Singles—Richard Miles, New York
Women's singles—Mrs. Leah Thall Neuberger, New York
Doubles—Richard Bergmann, England—Erwin Klein, Los Angeles
Women's doubles—Peggy Folke–Mrs. Leah Thall Neuberger, New York
Mixed doubles—Mildred Shaihan, Chicago—Richard Miles
Junior boys' singles—Erwin Klein, Los Angeles
Junior girls' singles—Sharlene Krizman, South Bend, Ind.
Boys' singles—Norbert Van de Walle, Chicago
Senior singles—Tibor Hazi, Chevy Chase, Md.
Senior doubles—Manfred Feher, Cleveland–Tibor Hazi
Esquire singles (men 50 years or over)—William Gunn, Mamaroneck, N. Y.

SKIING

North American Championships

Jumping (at St. Paul)—Ansten Samuelstuen, Steamboat Springs, Colo. (jumps of 190 and 189 feet)
18-kilo. cross-country (Minneapolis)—Sven S. Johansson, Anchorage, Alaska 1:12:27.0
Downhill (Sugar Bowl, Calif.)—Bill Beck, Mount Mansfield, Vt., and Ralph Miller, Camp Hale, Colo. (tie) 1:54.5
Slalom (Sugar Bowl)—Ralph Miller 1:42.2
Alpine combined (Sugar Bowl)—Ralph Miller 0:00 pts.

WOMEN

Downhill—Cathy Carey, Denver 1:06.5
Slalom—Gladys (Skeeter) Werner, Steamboat Springs, Colo. 2:01.8
Alpine combined—Gladys Werner 3.86 pts.

U. S. Championships

GIANT SLALOM
(At Seattle, April 3)

Men (1½ miles)—Ralph Miller, Camp Hale, Colo. 2:10.0
Women (¾ mile)—Jannette Burr Bray, Seattle 1:37.0

DOWNHILL AND SLALOM
(At Franconia, N. H., March 12–13)

Downhill—Chiharu Igaya, Dartmouth, and Bill Beck, Mount Mansfield, Vt. (tie) 1:55.3
Slalom—Ralph Miller 1:08.8
Combined—Chiharu Igaya 3.11 pts.

WOMEN
(At North Conway, N. H., March 12–13)

Downhill—Mrs. Andrea Mead Lawrence, Parshall, Colo. 2:13.5
Slalom—Mrs. Andrea M. Lawrence 2:12.0
Combined—Mrs. Andrea M. Lawrence 0.00 pts.

CROSS-COUNTRY
(At Eugene, Ore., Feb. 12–13)

Class A (18 kilo.)—Tauno Pulkkinen, Brooklyn 1:20:29.1
Class A (30 kilo.)—Tauno Pulkkinen 1:53:10.0
Class B—Arne Borgness, Eugene, Ore. 1:32:20.0

JUMPING

Class A—Rudi Maki, Ishpening, Mich. (jumps of 270 and 259 feet)
Class B—Jack Hooper, Iron Mountain, Mich. (242 and 262)

INTERCOLLEGIATE
(At Waitsfield and Northfield, Vt., March 4–6)

Jumping—Bill Olson, Denver (jumps of 122 and 119 feet) 204.9 pts.
Cross-country—Larry Damon, Vermont 54:10.2
Combined jumping and cross-country—Erik Berggren, Idaho 432.1 pts.
Downhill—Chiharu Igaya 2:09.3
Slalom—Chiharu Igaya, Dartmouth 1:27.4
Combined downhill and slalom—Igaya 256.7 pts.

TEAM

Jumping—Middlebury 96.487
Cross-country—Denver 94.692
Alpine combined—Dartmouth 93.685
Downhill—Dartmouth 98.437
Slalom—Dartmouth 98.684
Nordic combined—Denver 93.410
Combined team—Denver 567.050

Miss Leather Cuts Mile Mark

Diane Leather of England twice bettered her unofficial world record for the mile run in 1955. She ran the distance in 4 minutes 50.8 seconds at London on May 24 and had a 4:45 clocking on Sept. 21. The former mark of 4:59.6 was set on May 29, 1954. The governing International Amateur Athletic Federation does not recognize races at a mile for women.

A. A. U. JUDO CHAMPIONS

130 lb.—Ben Takahashi, Hollywood, Calif.
150 lb.—Kenji Yamada, Seattle
180 lb.—John Osako, Chicago
Heavyweight—Eugene Le Bell, Hollywood, Calif.
Tournament champion—Le Bell

BOXING

World Championship Fights in 1955

Date	Winner	Loser	Title at stake	Where held	Rounds	Attendance
Feb. 25	Sandy Saddler	Teddy Davis	Featherweight	New York	15	5,275
Mar. 9	*†Raul Macias	Chamrern Songkitrat	Bantamweight	San Francisco	KO 11	7,000
April 1	†Tony DeMarco	Johnny Saxton	Welterweight	Boston	KO 14	8,704
May 16	Rocky Marciano	Don Cockell	Heavyweight	San Francisco	KO 9	15,235
May 30	Pascuel Perez	Yoshio Shirai	Flyweight	Tokyo	KO 5	18,000
June 10	†Carmen Basilio	Tony DeMarco	Welterweight	Syracuse	KO 12	9,170
June 22	Archie Moore	Carl Olson	Light heavyweight	New York	KO 3	27,435
June 29	†Wallace Smith	James Carter	Lightweight	Boston	15	1,983
Sept. 3	‡Robert Cohen	Willie Toweel	Bantamweight	Johannesburg	Draw 15	30,000
Sept. 20	Rocky Marciano	Archie Moore	Heavyweight	New York	KO 9	61,574
Oct. 19	Wallace Smith	James Carter	Lightweight	Cincinnati	15	6,693

* Recognized by National Boxing Association. † Won title. ‡ Retained title.

AMATEUR BOXING

National A. A. U. Championships

(At Kansas City, May 5–7)

112 lb.—Heiji Shimatrikuro, Honolulu
119 lb.—John Cerephin, Air Force
125 lb.—Joe Charles, Air Force
132 lb.—Joe Pucas, Portland, Ore.
139 lb.—Robert Cofer, Philadelphia
147 lb.—Walter Sabbath, Detroit
156 lb.—Frank Davis, Fort Wayne, Ind.
165 lb.—Paul Wright, Air Force
178 lb.—John Horne, Washington, D. C.
Heavyweight Class—George Moore, Detroit

National Collegiate

(At Pocatello, Idaho, March 31–April 2)

119 lb.—Bobby McCullom, Idaho State
125 lb.—Seija Naya, Hawaii
132 lb.—Vince Palumbo, Maryland
139 lb.—John Granger, Syracuse
147 lb.—Herb Odom, Michigan State
156 lb.—Tony Dibiase, Virginia
165 lb.—Max Voshall, San Jose State
178 lb.—Gordon Gladson, Washington State
Heavyweight—Crowe Peele, Louisiana State
Team—Michigan State (17 pts.)
John S. LaRowe Trophy (outstanding boxer)—Naya

Intercollegiate Association

(At College Park, Md., March 11–12)

125 lb.—Gary Garber, Maryland
132 lb.—Vincent Palumbo, Maryland
139 lb.—John Granger, Syracuse
147 lb.—Gary Fisher, Maryland
156 lb.—Tony Dibiase, Virginia
165 lb.—Gus Fiacco, Syracuse
178 lb.—Leo Coyne, Maryland
Heavyweight—Tom Quinn, Georgetown
Team (Neil Trophy)—Maryland (39 pts.)

HORSESHOE PITCHING

World Championships

(At Murray, Utah, July 20–27)

FINAL PLAY-OFF STANDING

	W.	L.	Pts.
*Ted Allen, Boulder, Colo.	3	0	150
Fernando Isais, Los Angeles	1	2	139
Tommy Brownell, Amsterdam, N. Y.	1	2	110
Don Titcomb, Sunnyvale, Calif.	1	2	91

* Allen qualified for the final with a perfect record of 35 victories. Titcomb had a 31–4 mark, Isais 30–5, Brownell 28–7. Mrs. Hazel Harris of Denver beat Mrs. Katie Gregson, Crestline, Calif., 50–38 and 50–47, to win the women's title.

WRESTLING

United States Champions

FREE-STYLE

114.5 lb.—Katsutoshi Yokoyama, Japan
125.5 lb.—Etsuma Iwano, Japan
136.5 lb.—Motoichi Motohashi, Japan
147.5 lb.—Joe Scandura, New York A. C.
160.5 lb.—Dr. Melvin Northrup, Olympic Club, San Francisco
174 lb.—Wenzel Habel, Camp Kilmer, N. J.
191 lb.—Tim Woodin, Ithaca Grapplers
Heavyweight—Bill Kerslake, Cleveland
Team—New York A. C. (19 pts.)

GRECO-ROMAN

114.5 lb.—Katsutoshi Yokoyama
125.5 lb.—Shuhei Imada, Japan
136.5 lb.—Todashi Numajiri, Japan
147.5 lb.—Newton Copple, New York A. C.
160.5 lb.—Henrik Hansen, McBurney Y.M.C.A., New York
174 lb.—Jim Peckham, Boston Young Men's Christian Union
191 lb.—Bob Steckle, Kitchener Y.M.C.A., Toronto
Heavyweight—Bill Kerslake
Team—Fort Campbell, Ky. (22 pts.)

National Collegiate

115 lb.—Terrance McCann, Iowa
123 lb.—Edwin Peery, Pittsburgh
130 lb.—Myron Roderick, Oklahoma A. & M.
137 lb.—Lawrence Fornicola, Penn State
147 lb.—Edward Eichelberger, Lehigh
157 lb.—Bill Weick, Iowa Teachers
167 lb.—Fred Davis, Oklahoma A. & M.
177 lb.—Dan Hodge, Oklahoma
191 lb.—Peter Blair, Navy
Heavyweight—William Oberly, Penn State
Team—Oklahoma A. & M. (40 pts.)

Eastern Intercollegiate

123 lb.—William Hulings, Pittsburgh
130 lb.—Edwin Peery, Pittsburgh
137 lb.—Lawrence Fornicola, Penn State
147 lb.—Edward Eichelberger, Lehigh
157 lb.—Edwin Rooney, Syracuse
167 lb.—Joseph Gattuso, Navy
177 lb.—Joseph Solomon, Pittsburgh
Heavyweight—Peter Blair, Navy
Team—Pittsburgh

The team of B. C. McGowan of Dallas, Tex., and Merle Parker, Wichita, Kan., won the first-division championship of the American Roque League at the national tournament in Wichita in 1955. Frank Lemoine, May Pearl, Tex. was the victor in the second division.

ARCHERY

Source: J. Robert Kest, Secretary-Treasurer, National Archery Association of the United States, and Mrs. Myrtle K. Miller, Teela-Wooket Archery Camp, 450 West 24th Street, New York 11, N. Y.

World Championships

(At Helsinki, Finland)

	Points
Men's target—Nils Andersson, Sweden	3,020
Women's target—Katarzyna Wisniowska, Poland	3,033
Men's team—Sweden	8,627
Women's team—England	8,679

United States

(At Oxford, Ohio, Aug. 8–12)

TARGET

Men—Joe Fries, Los Angeles	3,252
Women—Mrs. Ann Clark, Cincinnati	3,606
American round—J. Robert Kest, Santa Ana, Calif.	4,048
International short round—Joe Fries	90-763
Hereford round—Ann Marston, Wyandotte, Mich.	135-775
Bare bow sextuple American—Bertram R. Hatfield, Cincinnati	3,974
Women's bare bow—Miriam Clark, Cincinnati	2,721
Junior boys—Richard Carlson, Sacramento, Calif.	3,476
Junior girls—Nancy Breneman, Columbus, Ohio	3,411
Intermediate boys—Gerald Kapela, Toledo	2,792
Intermediate girls—Kay Volkman, Dayton, Ohio	2,292

CROSSBOW

Men—Paul Eytel, Pluckemin, N. J.	2,854
Women—Lillian Eytel, Pluckemin, N. J.	2,302
Men's clout—Fred Isles, Cranford, N. J.	34-230
Women's clout—Lillian Eytel	14-40
Kings round—Sydney G. Berliner, New Rochelle, N. Y.	36

CLOUT

Men (180 yd.)—Dimitri Erdely, Erie, Pa.	36-268
Women (140 yd.)—Virginia Hersh, Dayton, Ohio	36-284
Women (120 yd.)—Alice S. Hilton, Dunkirk, N. Y.	36-258
Junior boys—Jerry Gooley, Shelton, Conn.	36-278
Junior girls—Dorothy Breneman, Columbus, Ohio	36-236
Intermediate boys—Gerald Kapela	36-256

WAND

Men (100 yd.)—Hubert H. Halfmoon, Oklahoma City	5
Women (60 yd.)—Pearl Cohen, Willimantic, Conn.	5
Junior boys—Billy Snyder, Portland, Ore.	6
Junior girls—Dorothy Breneman	3
Intermediate boys—Gerald Kapela	4

CLUB TEAM

Men—Cleveland Archery Club (Sylvester Chessman, 706; Emil Pikula, 677; Winston Hussey, 687; Bernie Terhart, 796)	2,767
Women—Cleveland Archery Club (Marie Svoboda, 488; Kate Smith, 483; Murielle Bassak, 684; Eleanor Moczadlo, 638)	2,293

FLIGHT

Class	Yards
50 lb.—Cecil Modlin, Evansville, Ind.	531 yd. 1 ft.
65 lb.—Irving Baker, Westfield, N. J.	556 yd. 6 in.
80 lb.—Irving Baker	585 yd. 6 in.
Unlimited—Cecil Modlin	614 yd. 1 ft.
Free style—Charles Pierson, Cincinnati	774

CROSSBOW

50 lb.—Col. Francis E. Pierce, Coronado, Calif.	440 yd. 1 ft.
65 lb.—Col. Francis E. Pierce	471
80 lb.—Col. Francis E. Pierce	566
Unlimited—Col. Francis E. Pierce	455

WOMEN

35 lb.—Virginia Hersh	393 yd. 3 in.
50 lb.—Eunice Modlin, Evansville, Ind.	392 yd. 2 ft.
Unlimited—Dorothy Humbert, Springboro, Ohio	381 yd. 6 in.
Free style—Dorothy Humbert	536 yd. 2 ft.

JUNIOR BOYS

35 lb.—Larry Modlin, Evansville, Ind.	473 yd. 6 in.
50 lb.—Larry Modlin	553
Unlimited—Larry Modlin	504

FLY AND BAIT CASTING

Source: L. S. Williams, Executive Secretary, National Association of Angling and Casting Clubs.

National Championships

(At St. Louis, Aug. 17–21)

All-around—Marion Garber, Toledo

Official Combined Champions

Distance baits—William J. Lovely, St. Louis	2311 ft.
Distance flies—Jon Tarantino, San Francisco	1105 ft.
Accuracy baits—Rolland Williams, Baytown, Tex.	197 pts.
Accuracy flies—Jim Kangas, Toledo	197 pts.
All-distance—Jon Tarantino	3334 ft.
All-accuracy—Robert Budd, Jeffersonville, Ind., and Jim Kangas (tie)	391 pts.

WOMEN

Accuracy baits—Mel Gavin, St. Louis	190 pts.
Accuracy flies—Mel Gavin	194 pts.
All-accuracy—Mel Gavin	384 pts.

INTERMEDIATE

Accuracy baits—Bill True, Minneapolis	195 pts.
Accuracy flies—Delno Huff, Los Angeles	382 pts.

JUNIOR

Accuracy baits—Benjie Fontaine, New Orleans	185 pts.

Official Distance Events

	Avg. feet	Long cast
⅜-oz. bait—Richard R. Ward, Washington, D. C.	368	386
½-oz. bait—William J. Lovely	427⅗	442
Trout fly—Jon Tarantino	169	175
Salmon fly—Myron C. Gregory, San Francisco	200⅗	212

Official Accuracy Events

	Pts.
Dry fly—Frank J. Nulty, Chicago	98
Wet fly—George H. Applegren, Chicago	100
⅜-oz. bait—Bobby Spear, Fort Worth	99
½-oz. bait—Don Allen, Smithville, Mo.	100

WOMEN

Dry fly—Mel Gavin	96
Wet fly—Mel Gavin	98
⅜-oz. bait—Mel Gavin	94
½-oz. bait—Mel Gavin	96

INTERMEDIATE

Dry fly—Delno Huff	96
Wet fly—Delno Huff	100
⅜-oz. bait—Bill True	97
½-oz. bait—Bill True	98

JUNIOR

⅜-oz. bait—Benjie Fontaine	91
½-oz. bait—Jeffrey Jures, East Chicago, Ind.	95

TEAM

Five-man—St. Louis Fly and Bait Casting Club 479

Skish Events

All-around—John Tarantino	—
Accuracy fly—Rolland Williams	95 pts.
Accuracy bait—Warren Rector, Oklahoma City	88 pts.
Distance fly—Ben Fontaine, New Orleans	140⅗ avg., 148 long cast
Distance bait—R. A. Feemster, Houston	233⅗ avg., 237 long cast

WOMEN

Accuracy fly—Ronnie Miller, Kansas City, Mo.	89 pts.
Accuracy bait—Mel Gavin	96 pts.

JUNIOR

Accuracy fly—Billy Peters, Toledo	79 pts.
Accuracy bait—Max Rainey, Jr., Los Angeles	94 pts.

Skish Combined Champions

Accuracy—Marion Garber	476 pts.
Distance—Ben Fontaine	1115 ft.
Women's accuracy—Mel Gavin	481 pts.
Junior accuracy—Billy Peters	159 pts.

ROLLER SKATING

A. R. S. A. CHAMPIONS

Source: United States Amateur Roller Skating Association.

National

(At Mineola, N. Y., Aug. 1–6)

SINGLES

Men's senior—Billy Ferraro, Jr., Livonia, Mich.
Women's senior—Margie Adair, Trenton, N. J.
Men's junior—William Kelly, Bridgeport, Conn.
Women's junior—Avis Cook, Pasadena, Calif.
Men's intermediate—Thomas Kaltenbach, Livonia, Mich.
Women's intermediate—Theresa Colaio, Bayonne, N. J.
Men's novice—Larry Seegott, Mineola, N. Y.
Women's novice—Dawn Brown, Trenton, N. J.
Boys' juvenile—Billy Lessne, Mineola, N. Y.
Girls' juvenile—Judy Drost, Mineola, N. Y.

PAIRS

Senior—Jack Crichton, Levittown, N. Y.-Margie Adair
Women's senior—Margie Adair-Dawn Brown
Senior dance—Edward O'Donnell-Barbara McCusker, Mineola, N. Y.
Junior—Milton Kyle-Alice Monteith, Washington, D. C.
Junior dance—Earl Roberts, Bayonne, N. J.-Mildred Kraemer, Hackensack, N. J.
Intermediate—Thomas Kaltenbach-Nancy Galbraith, Livonia, Mich.
Intermediate dance—Robert Lange-Frances Bendowski, Levittown, N. Y.
Novice—Larry Seegott-Judy Ann Snyder, Mineola, N. Y.
Novice dance—Harry Post-Marilyn Pavlick, Hackensack, N. J.
Juvenile—Warner Frazer-Sandra Elliott, Livonia, Mich.
Juvenile dance—Warner Frazer-Sandra Elliott

FOURS

Senior—Elizabeth, N. J. (Heisler, Bonocore, Schmitt, Loeffler)
Intermediate—Trenton, N. J. (Binner, Brown, Kungl, Gomper)

SPEED

Men's senior—Albert Eckworth, Mount Vernon, N. Y.
Women's senior—Furn Walton, Washington, D. C.
Men's junior—Corwin Branigan, Peekskill, N. Y.
Women's junior—Bonnie Post, Hackensack, N. J.
Men's intermediate—Peter Mangone, Hackensack, N. J.
Women's intermediate—Judy McGuire, Peekskill, N. Y.
Men's novice—Robert Monar, Elizabeth, N. J.
Women's novice—Joan Hobeck, Alexandria, Va.

CANOEING

Source: Walter Haner, Jr., Chairman, National Paddling Committee, American Canoe Association.

U. S. Paddling Championships

(At Washington, July 31—1,000-meter course)

SENIOR

	Time
1-man single blade—George Byers, Samoset C. C.	5:22.6
Tandem single—John Pagkos-Tom Budrock, Yonkers C. C.	4:18.0
4-man single—Philadelphia C. C. (H. Retzell, R. Harrington, J. Barnitz, F. Krick)	5:02.0
1-man double—John Pagkos	4:52.4
Tandem double—John Pagkos-Russell Dermond, Yonkers C. C.	4:18.2
4-man double—Yonkers C. C. (J. Pagkos, A. Geraty, G. Barker, J. Anderson)	4:53.0

JUNIOR

1-man single—Phil Doherty, Samoset C. C.	—
Tandem single—Wally Haase-Tom Jones, Potomac B. C.	4:01.6
4-man single—Yonkers C. C. (C. Hourican, A. Hess, M. Pagkos, G. Barker)	5:03.0
1-man double—Ed Houston, Inwood C. C.	4:47.2
Tandem double—Ken Wilson-Ed Houston, Inwood C. C.	4:16.7
4-man double—Yonkers C. C. (G. Anderson, R. Dermond, C. Hourican, L. Cooper)	5:53.8
Goodenough Trophy—Ed Houston	8½ pts

TEAM POINT SCORES

Yonkers C. C.	44	Potomac B. C.	12
Inwood C. C.	24	Samoset C. C.	11
Philadelphia C. C.	12	Wanda C. C.	4

RINK OPERATORS CHAMPIONS

Source: Roller Skating Rink Operators Association of America.

American

(At Toledo, Ohio, July 24–30)

SINGLES

Men's singles—Edgar Watrous, Hartford, Conn.
Women's singles—Suean Cowan, Greeley, Colo.
Men's intermediate—Kenneth Schaffer, Brooklyn
Women's intermediate—Patricia Kendall, Flint, Mich.
Men's novice—Fred Cappelieri, Brooklyn
Women's novice—Joyce Tober, Newburgh, N. Y.
Junior boys—Frank DiGennaro, Brooklyn
Junior girls—Carolyn Sliger, Springfield, Mo.

FIGURES

Men's senior—John Matejec, Pontiac, Mich.
Women's senior—Carol Haller, Peoria, Ill.
Men's intermediate—Pompey Rhea, Odessa, Tex.
Women's intermediate—Lynne Mathewson, San Leandro, Calif.
Men's novice—Dennis Prifti, Brockton, Mass.
Women's novice—Beverly Hetherington, Pontiac, Mich.
Junior boys—Terry Middleton, Peoria, Ill.
Junior girls—Nancy Wright, Tulsa, Okla.

PAIRS

Senior—Warren Colozzo-Patricia Benedict, Brooklyn
Intermediate—Kenneth Trotter-Ruth Hesseman, Elmont, N. Y.
Novice—Jerry Gerig-Pat Holmok, Cleveland
Junior—Richard Mullican-Judith Nance, Long Beach, Calif.

DANCE

Senior—Gary Castro-Marilyn Roberts, San Diego, Calif.
Intermediate—George and Helene Hammond, Long Beach, Calif.
Novice—William Tobin-Marge Killeaney, San Diego, Calif.
Junior—Richard Souza-Vicky Pitts, Marysville, Calif.

FOURS

Senior—Long Beach, Calif. (Michael Glatz, Tony Sakowicz, Patricia Pennington, Gwen Hess)
Intermediate—Lima, Ohio (Dick Watt, Linda First, Jack Odle, Ann Fuerst)

SPEED

Men's senior—Earl Wilmot, Richmond, Ind.
Women's senior—Evalyn Olson Kelly, Tulsa, Okla.
Men's intermediate—Joe Foster, Oakland, Calif.
Women's intermediate—Sharon Stevens, Redonda Beach, Calif.
Men's relay—Brooklyn (Ernest Bielfield, Donn Calvano, Henry Abrami, Jr., Robert Johnson)
Women's relay—Redondo Beach, Calif. (Noreen Knapp, Sharon, Stevens, Glenda Wilson, Laverne Cowan)
Mixed relay—Redondo Beach (Jerry Tarrant, Glenda Wilson, Duane Crackel, Sharon Stevens)

North American Racing

(At Montreal, Aug. 21—1,000 meters)

1-man single—Don Stringer, Sudbury (Ont.) C. C.	4:07.0
Tandem single—A. Jordan-C. Hodge, Lachine C. C., Montreal	4:28.0
4-man single—Lachine C. C. (A. Jordan, A. Thomson, D. Rose, C. Hodge)	4:02.6
1-man double—L. Smith, Winnipeg C. C.	3:52.0
Tandem double—W. Harris-G. Ward, Lachine C. C.	3:43.4
4-man double—Lachine C. C. (A. Bredovakis, L. Rice, J. Lafiair, D. Hilborn)	3:50.2

Sugar Island Races

Championship Trophy (1-mile double blade)—Eric Feicht, Inwood C. C.
Wilkin Trophy (4-man single)—Island C. C., Toronto (K. Dossley, G. Offer, C. R. Anders, K. G. Collins)
J. K. Hand Trophy (4-man double)—Inwood C. C. (E. Houston, K. Wilson, H. Bowe, E. Feicht)

Sailing

International Challenge Cup—United States (Lou Whitman, Adolph Morse, Joe Farrugia, Frank Jordaens) defeated England, 2 races to 1, to retain sailing canoe trophy.
U. S. Decked—Adolph Morse, Phoenix C. C., Lindenhurst, N. Y.
U. S. Cruising sailing—Stephen Lysak, Yonkers C. C.

RIFLE AND PISTOL SHOOTING

Source: Paul B. Cardinal, Public Relations, National Rifle Association of America.

National Champions

OUTDOOR

Rifle

	Score
Small-bore—Mrs. Viola Pollum, Brookville, Pa.	6390
*High-power—Sgt. First Class Lloyd G. Crow, Jr., U. S. Army	643-69V
†High-power—Capt. John W. Kolb, U. S. Army	633-61V
Women's small-bore—Mrs. Viola Pollum	6390
*Women's high-power—Marlene Bellinger, Seattle	618-52V
†Women's high-power—Ruth I. Sawyer, Dayton, Ohio	541-21V
*Civilian high-power—Ammon F. Bell, Hummelstown, Pa.	637-65V
†Civilian high-power—Paul Sullivan, Washington, Ill.	601-40V
Junior Small-bore—William J. Grater, Oxnard, Calif.	6367
*Junior high-power—George M. Van Orden, Triangle, Va.	603-42V
†Junior high-power—Walter L. Johnson, Warwick, Va.	522-17V

* NRA match rifle. † M-1 service rifle.

Pistol

Men—Master Sgt. Huelet Benner, U. S. Army	2619
Women—Mrs. Gertrude E. Backstrom, Hoquiam, Wash.	2541
Civilian—Robert K. Fisher, Los Alamos, New Mexico	2542
Police—Joseph C. White, Jr., U. S. Border Patrol	2596

NATIONAL TROPHY MATCHES

Individual rifle—First Lt. Charles A. Folsom, U. S. Marine Corps	242-20V
Team rifle—U. S. Marine Corps (Henry J. Witkowski, Edwin L. Hayes, Frank A. Wigmore, George L. Armitage, Charles D. Castanedo, Siegfried H. Kamrau)	1388
Individual pistol—Major Ben Curtis, U. S. Army	*290
Team pistol—U. S. Army (William A. Hancock, Lloyd G. Hummert, David C. Miller, William B. Blankenship)*	1137

* Record.

INDOOR

Small-Bore Rifle

Men—Verle F. Wright, Fort Wayne, Ind.	792
Women—Ruth I. Sawyer	783
Junior—Richard Grymes, Washington, D. C.	193
Intercollegiate—Leonard Puccinelli, California	293
Team—Minneapolis R. C. (H. Woltman, E. D. Swanson, R. K. Sandager, O. C. Helseth)	1570
Junior team—Kent League Junior R. C., Grand Rapids, Mich. (Paul Gogulski, Ron Insley, Jim Greenhoe, Russell Brown)	751
Intercollegiate team—California (John Ward, Francis X. Clasby, Tao-Yuan Wu, James Carter, Charles Quesnoy)	1442

Pistol

Men—Charles E. Hery, Everett, Mass.	859
Women—Mrs. Gertrude E. Backstrom	843
Team—Bu-Ord Club, Washington, D. C. (H. D. Thomte, Paul E. Ebersole, Jr., Leonard M. Rizzolla, Albert N. Beardslee)	1135

Squire Synchronized Victor

Donn Squire of San Francisco won the first men's National A. A. U. senior synchronized swimming championship, held at Rockford, Ill., July 9 and 10, 1955. Squire scored 149.24 points, while the runner-up, Wayne White of Washington, had 136.

LAWN BOWLING

Source: W. G. "Bill" Hay, Honorary Life President, American Lawn Bowling Association.

National Champions

Singles—Harry P. Hope, St. Petersburg (Fla.) L. B. C. Runner-up: Frank C. Wilson, Elmwood L. B. C., London, Ont.
Doubles—Jeff Smith-Frank C. Wilson, Elmwood L. B. C. Runners-up: John W. Stewart-Dr. R. W. Sendker, St. Petersburg, Fla.
Triples—John Chisholm, Isaac Balmain, Alexander L. Ripley (skip), New York L. B. C. Runners-up: Hugh M. Burgess, Stewart A. Tulloch, Dr. Weston Krup (skip), St. Petersburg L. B. C.

Divisional Champions

EASTERN

Singles—Harry Edwards, Boston Bowling Green Club Runner-up: Campbell Blaney, Bridgeport (Conn.) L. B. C.
Doubles—Thomas Hope-George Hope, Essex County L. B. C., Bloomfield, N. J. Runners-up: William C. Hoxie-Walter H. Weeden, Cunningham Bowling Green Club, Milton, Mass.
Rinks—James Hamilton, Thomas Fairbairn, Herbert Howarth, John McPoland (skip), New York L. B. C. Runners-up: Sid Warne, Leslie Maplethorpe, Dave Manson, Dick Auld, Hyde Park L. B. C., Niagara Falls, N. Y.

CENTRAL

Singles—Bill Tewksbury, St. Petersburg L. B. C. Runner-up: David Greenough, Columbus Park L. B. C., Chicago.
Doubles—George Fyfe-John Proctor, Columbus Park L. B. C. Runners-up: James Watson-James Coubrough, Detroit.
Rinks—Andy Campbell, Andy Gilchrist, William Crerar, Hugh Crerar (skip), Columbus Park L. B. C. Runners-up: Charles Dawson, Kimball Carhart, Dr. William Earle, Otto Hess (skip), Milwaukee L. B. A.

NORTHWEST

Singles—R. A. Bindley, West Vancouver, B. C. Runner-up: J. Hamblin, Vancouver, B. C.
Doubles—A. Morrison-Sherman Siddons, Jefferson Park Club, Seattle. Runners-up: James Ritchie-Dave Brown, Jefferson Park Club.
Triples—Cy Mentzer, Lew Thomas, Ernie Myers (skip), Tacoma, Wash. Runners-up: Charles Richeson, Jock Davidson, Gordon Martin (skip), Queen City Club, Seattle.

SOUTHWEST

Singles—T. Moorcroft, Vancouver, B. C. Runner-up: F. Jorgensen, Riverside, Calif.
Doubles—Frank Murray-Carroll Chase, Pasadena, Calif. Runners-up: W. Waddington-L. Schofield. San Diego, Calif.
Triples—R. Allegretti, Frank Murray, Carroll Chase (skip), Pasadena, Calif. Runners-up: Ed Magee, H. Kaufman, D. Cameron (skip), Arroyo Seco L. B. C., Los Angeles.

RACQUETS

World open—Geoffrey W. T. Atkins, Chicago
U. S. singles—Geoffrey W. T. Atkins
U. S. doubles—William Wood–Prince–Geoffrey W. T. Atkins, Chicago
Tuxedo Gold Racquet—Geoffrey W. T. Atkins
Canadian singles—Geoffrey W. T. Atkins
Canadian doubles—Kenneth A. Wagg, New York—Geoffrey W. T. Atkins

COURT TENNIS

World open—James Dear, London, England, beat Albert (Jack) Johnson, New York, 11 sets to 10, for title vacated by Pierre Etchebaster in 1954.
American open—Albert (Jack) Johnson
U. S. singles—Alastair B. Martin, Glen Head, N. Y.
U. S. doubles—William L. Van Alen–F. Hastings Griffin, Philadelphia
Intercollegiate team (Van Alen Trophy)—Harvard

SQUASH TENNIS

U. S. singles—H. Robert Reeve, New York A. C.

CYCLING

Tour of France

Louison Bobet, victor in 1953 and 1954, became the first to win the Tour of France in three successive years when he captured the 1955 race.

The 1955 Tour covered 2,805 miles and Bobet's time for the 22 stages (days) was 130 hours 29 minutes 26 seconds.

France's Bobet, Geminiani and Mahe took the team prize, with Italy second and Belgium third.

The leading finishers:

	h. m. s.
1—Louison Bobet, France	130:29:26
2—Jean Brankert, Belgium	130:34:19
3—Charles Gaul, Luxembourg	130:40:56
4—Pasquale Fornara, Italy	130:42:10
5—Alan Rolland, France	130:42:44

World Championships

(At Rome and Milan, Italy, Aug. 27–Sept. 3)

Professional road—Stan Ockers, Belgium
Amateur road—Sante Ranucci, Italy
Professional sprint—Antonio Maspes, Italy
Amateur sprint—Guiseppe Ogna, Italy
Professional pursuit—Guido Messina, Italy
Amateur pursuit—Norman Sheil, England
Professional motor-paced—Guillermo Timoner, Spain

United States Amateur

(At New York, Aug. 27–28)

Open—Jack Disney, Altadena, Calif.
1/2-mile—Jack Disney
Mile—Jack Disney
5 miles—Jack Disney
10 miles—Arthur Longsjo, Fitchburg, Mass.
Junior open—Pat DeCollibus, Buffalo
Girls' open—Jeanne Robinson, Detroit

MOTORBOATING

Major Trophy Winners

Gold Cup—Gale V, Lee Schoenith, driver; Joseph Schoenith, Detroit, owner
Silver Cup—Tempo VII, Danny Foster, driver; Guy Lombardo, Freeport, N. Y., owner
President's Cup—Tempo VII
Detroit Memorial—Gale IV, Bill Cantrell, owner and driver
Aaron DeRoy Plaque—Stanley S. Sayres, Seattle
Calvert Trophy—Marion Cooper, Louisville, Ky.
James Craig Trophy—Ray Bridges, Newport Beach, Calif.
Huckins Memorial Trophy—R. Perry Collins, Boston
Maple Leaf Trophy—Frank Saile, Grosse Pointe, Mich.
Martini Rossi Trophy—Stanley S. Sayres
Lt. J. J. Meehan, Jr. Trophy—Chuck Thompson, Detroit
Pat Ryan Memorial Trophy—Warren Litten, Santa Ana, Calif.

National Champions

INBOARD

91 hydro—E. B. Davidson, Tampa, Fla.
135 hydro—John S. Corea, Dos Palos, Calif.
136 hydro—Don DeVault, Glen Burnie, Md.
225 hydro—Tom Stenger, Jr., Dayton, Ohio
266 hydro—Frank Hearn, Toledo, Ohio
7-litre—Louis Nuta, Sr., Miami, Fla.
Pacific One-Design—Marion Beaver, Parker, Ariz.
Unlimited—Guy Lombardo, Freeport, N. Y.
Crackerbox—Byron Herman, Glendale, Calif.
C racing runabout—William Seldon, St. Petersburg, Fla.
D service runabout—Harry Bickford, Hampton, Va.
E ser. run.—Enoch Walker, Hampton, Va.
F ser. run.—H. G. Hibbert, Miami, Fla.
B rac. run.—Woody Eldredge, Merced, Calif.
Jersey Speed Skiff—James Camp, Newark, N. J.

STOCK OUTBOARD

JU—Bill Schumacher, Seattle
AU—Bill Schumacher
BU—Don Baldaccini, Miami, Fla.
CU—Ron Loomis, Santa Barbara, Calif.
DU—Paul Woodroffe, Salem, Ore.
EU—Dean Maxhaffey, Salem, Ore.
ASH—Don Benson, Seattle
BSH—Don Baldaccini
DSH—Bud Sullivan, Seattle

CHESS

Source: American Chess Bulletin, New York

World Champions

Men—Mikhail Botvinnik, Leningrad, U.S.S.R.
Women—Mrs. Elizabeth Bykova, Moscow, U.S.S.R.
Junior—Boris Spassky, U.S.S.R.

United States

Men—Arthur B. Bisguier, New York
Women—Mrs. Gisela K. Gresser, New York, and Mrs. Nancy Roos, Los Angeles (co-champions)
Men's open—Nicholas Rossolimo, Paris, France
Women's open—Sonja Graf Stevenson, Palm Springs, Calif.
Speed—Donald Byrne, Ann Arbor, Mich., and Larry Evans, New York (co-champions)
Amateur—Clinton Parmelee, Newark, N. J.
Junior—Charles Kalme, Philadelphia

Matches and Tournaments

Beverwijk International, the Netherlands—Bora Milic, Yugoslavia
Buenos Aires Jubilee—Boris Ivkov, Yugoslavia
Eastern States championship—Walter J. Shipman, New York, and Saul Wachs, Philadelphia (tie)
Hastings (England) International—Vassily Smyslov and Paul Keres, both U.S.S.R. (tie, 7-2)
Interzonal tourney, Goteborg, Sweden—David Bronstein, U.S.S.R.
National intercollegiate team—Fordham
Manhattan C. C. championship—Alexander Kevitz, New York
Mar del Plata International, Argentina—Boris Ivkov
Marshall C. C. championship—Franklin S. Howard, East Orange, N. J., and William Lombardy, New York (tie)
Metropolitan League championship—Manhattan C. C.
New Jersey Federation championship—Eliot Hearst, New York
New York State championship—Edmar Mednis, New York
Rosenwald Trophy—Samuel Reshevsky, New York
Soviet championship—Ewfim Geller, U.S.S.R.
Team match, Moscow—U.S.S.R. 25, United States 7

SOCCER

Source: Flannery News Bureau, New York

National Challenge Cup—Eintracht, Astoria, N. Y.
National Amateur Cup—Heidelberg (Pa.) Tornadoes
American League—Philadelphia Uhriks
Lewis Cup—Philadelphia Uhriks
National Junior Cup—Gottschee, New York, and Schwaben, Chicago (tie)
New York State Cup—Lithuanians, New York
Eastern District League—Nuova Italia, New York
German-American League—German Hungarians, New York
Metropolitan League—Chileno, New York
Metropolitan League Cup—Peru, New York
National League—Ukrainians, New York
New Jersey State League—Maritimo, Newark
N. Y. State Junior Cup—Gottschee, New York
N. Y. Juvenile Cup—Kollsman, New York
Boys' State Cup—Minerva, New York
Dr. Manning Cup—Great Neck, N. Y.

SKEET SHOOTING

National Championships

(At Waterford, Mich., Aug. 29–Sept. 4)

OPEN EVENTS

All-around (4 guns aggregate)—Robert E. Rath, Winnetka, Ill.	540 x 550
All-gauge—Alex H. Kerr, Beverly Hills, Calif.	250 x 250
Eastern—Capt. W. D. Wilkinson, Wichita, Kan.	100 x 100
Western—Titus H. Harris, Jr., Galveston, Tex.	100 x 100
20 gauge—Benjamin Dilorio, Jr., Utica, N. Y.	100 x 100
Small gauge—Alex H. Kerr	100 x 100
Sub-small gauge—Robert E. Rath	95 x 100
Guns handicap—Maj. V. G. L. Roth, Fort Lee, Va.	100 x 100

SPECIAL EVENTS (ALL GAUGE)

Champion of champions—Louis Gordon, Texarkana, Ark.	100 x 100
Collegiate—Jack Horner, San Francisco (U. of California)	249 x 250

MAJOR LEAGUE BASEBALL RECORDS FOR 1955

American League

Final Standing of the Clubs

	New York	Cleveland	Chicago	Boston	Detroit	Kansas City	Baltimore	Washington	Won	Lost	Percentage	Games Behind
New York	—	9	11	14	12	15	19	16	96	58	.623	—
Cleveland	13	—	12	11	12	17	19	9	93	61	.604	3
Chicago	11	10	—	13	14	14	12	17	91	63	.591	5
Boston	8	11	9	—	13	14	14	15	84	70	.545	12
Detroit	10	10	8	9	—	12	13	17	79	75	.513	17
Kansas City	7	5	8	8	10	—	12	13	63	91	.409	33
Baltimore	3	3	10	8	9	10	—	14	57	97	.370	39
Washington	6	13	5	7	5	9	8	—	53	101	.344	43

National League

Final Standing of the Clubs

	Brooklyn	Milwaukee	New York	Philadelphia	Cincinnati	Chicago	St. Louis	Pittsburgh	Won	Lost	Percentage	Games Behind
Brooklyn	—	15	13	16	12	14	14	14	98	55	.641	—
Milwaukee	7	—	14	14	13	15	11	11	85	69	.552	13½
New York	9	8	—	10	13	10	13	17	80	74	.519	18½
Philadelphia	6	8	12	—	11	12	13	15	77	77	.500	21½
Cincinnati	10	9	9	11	—	11	11	14	75	79	.487	23½
Chicago	7	7	12	10	11	—	14	11	72	81	.471	26
St. Louis	8	11	9	9	11	8	—	12	68	86	.442	30½
Pittsburgh	8	11	5	7	8	11	10	—	60	94	.390	38½

MINOR LEAGUE BASEBALL

1955 Pennant Winners

Asterisk indicates play-offs determine champions.

OPEN CLASSIFICATION

League and champion — Play-off winner

Pacific Coast—Seattle — No play-off

CLASS AAA

American Assn.—Minneapolis — Minneapolis
International—Montreal — Rochester

CLASS AA

Mexican—Mexico City Tigers — No play-offs
Southern Assn.—Memphis — Mobile
Texas—Dallas — Shreveport*

CLASS A

Eastern—Reading — Allentown
South Atlantic—Columbia — Augusta
Western—Colorado Springs — Wichita

CLASS B

Big State—Corpus Christi (both halves) — Corpus Christi*
Carolina—High Pt.-Thomasville — H.P.-Thomasville
Northwest—Salem (1st half); Eugene (2d half) — Eugene
Piedmont—Newport News — Lancaster
Three-I—Keokuk — Keokuk
Tri-State—Greenville (1st half); Spartanburg (2d half) — Spartanburg
W. Tex.-N. Mexico—Amarillo — Pampa*

CLASS C

Ariz.-Mexico—Cananea — No play-offs
California—Stockton (1st half); Fresno (2d half) — Fresno
Cotton States—Monroe (both halves) — Monroe
Evangeline—New Iberia (1st half); Lafayette (2d half) — Lafayette
Longhorn—San Angelo — San Angelo
Northern—Eau Claire — St. Cloud
Pioneer—Boise — Magic Valley
Provincial—St. Johns — Quebec

CLASS D

Alabama-Florida—Panama City — Panama City
Appalachian—Salem — Series canceled
Florida State—Orlando (both halves) — No play-offs
Georgia-Florida—Brunswick — (a)Series unfinished
Georgia State—Douglas — (b)Series unfinished
Kitty—Paducah — (c)No play-offs
Miss.-Ohio Valley—Dubuque — Dubuque
Pony—Hamilton — Hamilton
Sooner State—Lawton — Lawton*

(a) Brunswick and Waycross tied in victories, 1-1, when final series was canceled. (b) Douglas and Sanderville tied, 3-3-1, when final series was canceled; teams declared co-champions. (c) Paducah awarded play-off title.

JUNIOR WORLD SERIES

Minneapolis (A.A.) beat Rochester (I.L.), 4 games to 3.

DIXIE SERIES

Mobile (S.A.) beat Shreveport (T.L.), 4 games to 3.

THE LEADERS

American League

Batting—Al Kaline, Detroit — 340
Runs batted in—Ray Boone, Detroit, and Jackie Jensen, Boston (tie) — 116
Hits—Al Kaline, Detroit — 200
Doubles—Harvey Kuenn, Detroit — 38
Triples—Mickey Mantle, New York, and Andy Carey, New York (tie) — 11
Home runs—Mickey Mantle, New York — 37
Runs—Al Smith, Cleveland — 123
Stolen bases—Jim Rivera, Chicago — 25
Pitching—Ray Narleski, Cleveland (W 9, L 1) — 900
Strikeouts—Herb Score, Cleveland — 244

National League

Batting—Richie Ashburn, Philadelphia — 338
Runs batted in—Duke Snider, Brooklyn — 136
Hits—Hank Aaron, Milwaukee — 189
Doubles—Hank Aaron, Milwaukee, and Johnny Logan, Milwaukee (tie) — 37
Triples—Willie Mays, New York — 13
Home runs—Willie Mays, New York — 51
Runs—Duke Snider, Brooklyn — 126
Stolen bases—Bill Bruton, Milwaukee — 25
Pitching—Don Newcombe, Brooklyn (W 20, L 5) — 800
Strikeouts—Sam Jones, Chicago — 197

1955 ALL-STAR GAME

Stan Musial's home run in the twelfth inning gave the National League a 6-5 victory over the American League in the 1955 All-Star game at Milwaukee on July 12.

											R.	H.	E.
American	4	0	0	0	0	1	0	0	0	0	5	10	2
National	0	0	0	0	0	0	2	3	0	0	6	13	1

Batteries—Pierce, Wynn, Ford, Sullivan and Berra; Roberts, Haddix, Newcombe, Jones, Nuxhall, Conley and Crandall, Burgess, Lopata. Winning pitcher—Conley. Losing pitcher—Sullivan. Attendance—45,314. Receipts (gross)—$179,545.50.

Junior Baseball Champions

American Baseball Congress—Mechanics Uniform Supply, Houston, Tex.
Little League—Morrisville, Pa.
Babe Ruth League—Terre Haute, Ind.
P-O-N-Y League—Washington, Pa.
American Legion—Postal Employes No. 216, Cincinnati
Amateur Baseball Federation Junior—Arthur's Clothes, Detroit

Unofficial Averages

Source: Elias Baseball Bureau, New York.

AMERICAN LEAGUE

Individual Batting

	g	ab	r	h	hr	rbi	avg.
Valo, Kansas City	112	283	50	103	3	27	.364
Williams, Boston	98	320	77	114	28	85	.356
Cerv, New York	54	85	17	29	3	22	.341
Kaline, Detroit	152	588	121	200	27	102	.340
Power, Kansas City	147	596	90	190	19	75	.319
Skowron, New York	108	288	46	92	12	61	.319
Slaughter, N. Y.-K. C.	118	276	50	87	5	36	.315
Kell, Chicago	128	429	44	134	8	81	.312
Fox, Chicago	154	636	100	198	6	59	.311
Courtney, Chi.-Wash.	94	274	33	84	3	40	.307
Kuenn, Detroit	145	620	101	190	8	62	.306
Smith, Cleveland	154	607	123	186	22	77	.306
Mantle, New York	147	517	121	158	37	90	.306
Vernon, Washington	150	538	74	162	14	85	.301
Simpson, Cleve.-K. C.	114	397	43	119	5	52	.300
Paula, Washington	115	350	34	105	6	46	.300
Philley, Cleve.-Balt.	125	415	65	124	8	49	.299
Goodman, Boston	149	600	100	176	0	51	.293
Stephens, Boston	109	157	25	46	3	18	.293
Doby, Cleveland	131	491	91	143	26	75	.291
Lopez, Kansas City	128	483	50	140	15	68	.290
Howard, New York	97	279	34	81	10	44	.290
Minoso, Chicago	139	516	79	149	10	70	.289
McDougald, New York	141	533	78	152	13	53	.285
Runnels, Washington	134	503	67	143	2	49	.284
Boone, Detroit	135	500	61	142	20	116	.284
Torgeson, Detroit	89	299	58	85	9	49	.284
Klaus, Boston	135	541	83	153	7	60	.283
Piersall, Boston	149	515	68	146	13	61	.283
Nieman, Chicago	99	272	36	77	11	53	.283
Dropo, Chicago	141	453	55	127	19	79	.280
Tuttle, Detroit	154	603	101	168	14	75	.279
Bauer, New York	139	492	97	137	20	53	.278
Triandos, Baltimore	140	481	47	133	12	64	.277
Jensen, Boston	152	574	94	158	26	116	.275
Avila, Cleveland	141	537	82	147	13	60	.274
Berra, New York	147	541	84	147	27	108	.272
Sievers, Washington	144	508	75	138	24	106	.272
Smith, Baltimore	135	425	41	115	4	51	.271
Oravetz, Washington	100	263	24	71	0	25	.270
Fain, Detroit-Cleveland	113	255	32	68	2	31	.267
Rivera, Chicago	147	455	71	120	10	53	.264
Pope, Cleve.-Balt.	121	326	39	86	7	56	.264
Kennedy, Balt.-Chicago	109	284	38	75	9	48	.264
White, Boston	143	544	65	142	11	63	.261
Lollar, Chicago	138	426	67	111	16	60	.261
House, Detroit	103	328	37	85	15	53	.259
Rizzuto, New York	81	143	20	37	1	9	.259
Carey, New York	135	510	73	131	7	47	.257
Woodling, Balt.-Cleve.	126	404	55	104	8	53	.257
Throneberry, Boston	60	144	20	37	6	27	.257
Dente, Cleveland	73	105	10	27	0	10	.257
Diering, Baltimore	137	371	38	95	3	31	.256
Miranda, Baltimore	153	486	42	124	1	37	.255
Zernial, Kansas City	120	412	62	105	30	84	.255
Groth, Chicago-Wash.	94	260	34	66	3	28	.254
Noren, New York	132	371	48	94	8	58	.253
Wertz, Cleveland	74	257	30	65	14	55	.253
Shantz, W., Kansas City	79	217	18	55	1	12	.253
Astroth, Kansas City	101	274	29	69	5	23	.252
Foiles, Cleveland	62	111	13	28	1	6	.252
Evers, Balt.-Cleveland	99	251	31	63	8	38	.251
Finigan, Kansas City	150	539	69	135	9	70	.250
DeMaestri, Kansas City	123	456	41	114	6	37	.250
Yost, Washington	122	375	64	93	7	48	.248
Rosen, Cleveland	139	493	62	121	21	81	.245
Hatton, Boston	126	380	48	93	4	49	.245
Delsing, Detroit	114	356	49	87	10	60	.244
Kiner, Cleveland	123	320	58	78	18	54	.244
Abrams, Baltimore	117	310	57	75	6	32	.242
Mitchell, Cleveland	60	58	4	14	0	9	.241
Busby, Wash.-Chicago	146	528	61	126	7	41	.239
FitzGerald, Washington	74	236	29	56	4	19	.237
Zauchin, Boston	130	476	65	112	27	93	.235
Collins, New York	105	276	40	65	13	45	.234
Phillips, B., Detroit	94	184	18	43	3	23	.234
Hatfield, Detroit	122	413	51	96	8	33	.232
Coan, Balt.-Chicago	78	148	18	34	1	11	.230
Hunter, New York	98	255	14	58	3	20	.227
Wilson, Kansas City	99	273	39	61	15	39	.223

Club Batting

	g	r	h	hr	sb	avg.	was shut out
Chicago	155	725	1400	114	69	.268	12
Detroit	154	775	1406	130	41	.266	14
Boston	154	755	1392	136	42	.264	12
Kansas City	155	639	1394	121	24	.261	10
New York	154	762	1342	175	56	.260	5
Cleveland	154	698	1324	148	30	.257	9
Washington	154	598	1276	80	30	.248	24
Baltimore	156	542	1255	64	31	.237	22

NATIONAL LEAGUE

Individual Batting

	g	ab	r	h	hr	rbi	avg.
Ashburn, Philadelphia	140	533	91	180	3	42	.338
Mays, New York	152	580	123	185	51	127	.319
Musial, St. Louis	154	562	97	179	33	108	.319
Campanella, Brooklyn	123	446	81	142	32	107	.318
Kluszewski, Cincinnati	153	612	116	192	47	113	.314
Aaron, Milwaukee	153	602	106	189	27	106	.314
Furillo, Brooklyn	140	523	83	164	26	95	.314
Post, Cincinnati	154	601	116	186	40	108	.309
Snider, Brooklyn	148	538	126	166	42	136	.309
Bell, Cincinnati	154	610	88	188	27	104	.308
Mueller, New York	147	605	67	185	8	83	.306
Rhodes, New York	94	187	22	57	6	32	.305
Burgess, Phil.-Cinn.	123	442	71	133	21	78	.301
J. O'Brien, Pittsburgh	84	278	22	83	1	25	.299
Logan, Milwaukee	154	594	95	177	13	82	.298
Ennis, Philadelphia	146	564	82	167	29	120	.296
Banks, Chicago	154	597	99	176	44	117	.295
Moon, St. Louis	152	593	86	175	19	76	.295
Long, Pittsburgh	131	418	59	122	16	79	.292
Hodges, Brooklyn	150	546	76	158	27	102	.289
Mathews, Milwaukee	141	499	108	144	41	101	.289
Baumholtz, Chicago	105	280	23	81	1	27	.289
Bridges, Cincinnati	95	168	20	48	1	18	.286
Temple, Cincinnati	150	578	94	165	0	50	.285
Lynch, Pittsburgh	88	281	43	80	5	28	.285
Reese, Brooklyn	145	553	99	156	10	61	.282
Dark, New York	115	475	77	134	9	45	.282
Virdon, St. Louis	144	534	58	150	17	69	.281
Crowe, Milwaukee	104	303	40	85	15	55	.281
Cooper, Chicago	54	111	11	31	7	15	.279
Bruton, Milwaukee	149	636	106	175	9	46	.275
Lockman, New York	147	576	76	157	15	50	.273
Lopata, Philadelphia	99	303	49	82	22	58	.271
Repulski, St. Louis	147	512	64	138	23	73	.270
Baker, Chicago	154	609	82	163	11	52	.268
Schoendienst, St. Louis	147	553	68	148	11	51	.268
McMillan, Cincinnati	151	470	49	126	1	38	.268
Groat, Pittsburgh	151	521	45	139	4	51	.267
Boyer, St. Louis	147	530	78	141	18	61	.266
Pafko, Milwaukee	86	252	29	67	5	34	.266
Hofman, New York	96	207	32	55	10	26	.266
Fondy, Chicago	150	574	69	152	17	64	.265
Jackson, Chicago	138	499	72	132	21	69	.265
Adcock, Milwaukee	84	288	40	76	5	44	.264
Hamner, Philadelphia	104	406	57	104	5	43	.257
Thomson, Milwaukee	101	343	40	88	12	56	.257
Terwilliger, New York	80	257	29	66	1	18	.257
Jones, Philadelphia	146	516	65	132	16	81	.256
Robinson, Brooklyn	105	317	51	81	8	36	.256
King, Chicago	113	301	42	77	11	45	.256
Sarni, St. Louis	107	325	32	83	3	34	.255
Greengrass, Cinn.-Phila.	107	362	46	92	12	38	.254
Clemente, Pittsburgh	124	474	48	120	5	47	.253
Freese, E., Pittsburgh	134	455	69	115	14	44	.253
Williams, New York	82	247	25	62	4	15	.251
Harmon, Cincinnati	96	199	30	50	5	28	.251
Gilliam, Brooklyn	147	538	110	134	7	40	.249
Amoros, Brooklyn	119	388	60	96	10	51	.247
Thomas, Pittsburgh	142	510	72	125	25	71	.245
Thompson, New York	135	432	63	106	17	63	.245
Gorbous, Cinn.-Phila.	99	242	27	59	4	27	.244
Tanner, Milwaukee	96	242	27	59	6	27	.244
Hemus, St. Louis	96	206	36	50	5	21	.243
Seminick, Cinn.-Phila.	99	306	34	74	12	35	.242
Palys, Cincinnati	94	274	37	66	8	36	.241
Grammas, St. Louis	128	367	32	88	3	25	.240
Hoak, Brooklyn	94	279	50	67	5	19	.240
Jablonski, Cincinnati	74	221	28	53	9	28	.240
Zimmer, Brooklyn	88	280	38	67	15	50	.239
Shepard, Pittsburgh	94	264	24	63	2	23	.239
Crandall, Milwaukee	133	440	61	104	26	62	.236
Miksis, Chicago	131	481	52	113	9	42	.235
O'Brien, E., Pittsburgh	75	237	26	55	0	9	.232
Chiti, Chicago	113	338	24	78	11	39	.231
Cole, Pittsburgh	77	239	16	55	0	22	.230
O'Connell, Milwaukee	124	453	47	102	6	40	.225
Gordon, Pitts.-New York	82	191	21	43	7	26	.225
Speake, Chicago	95	261	36	57	12	43	.218
Mejias, Pittsburgh	72	167	14	36	3	21	.216
Thurman, Cincinnati	82	153	19	33	7	22	.216

Club Batting

	g	r	h	hr	rbi	sb	avg.	was shut out
Brooklyn	154	857	1406	201	795	79	.271	5
Cincinnati	154	761	1424	181	721	49	.270	10
Milwaukee	154	743	1377	182	695	41	.261	10
St. Louis	154	654	1375	143	609	63	.261	9
New York	154	702	1377	169	642	39	.260	5
Philadelphia	154	674	1299	132	632	41	.255	6
Chicago	154	626	1287	164	597	36	.247	11
Pittsburgh	154	562	1262	91	530	22	.244	15

American League (Contd.)
Pitching Records

	g	ip	h	bb	so	w	l	pct.
Narleski, Cleveland	60	112	91	53	91	9	1	.900
Larsen, New York	19	97	81	50	44	9	2	.818
Konstanty, New York	45	74	69	25	20	7	2	.778
Byrne, New York	28	160	137	88	78	16	5	.762
Howell, Chicago	35	74	70	25	24	8	3	.727
Ford, New York	39	254	188	113	135	18	7	.720
Morgan, New York	40	72	72	24	16	7	3	.700
Hoeft, Detroit	32	220	187	75	132	16	7	.696
Fornieles, Chicago	26	87	84	29	22	6	3	.667
Aber, Detroit	39	82	86	27	36	6	3	.667
Lemon, Cleveland	35	211	217	73	100	18	10	.643
Donovan, Chicago	29	188	186	48	87	15	9	.625
Houtteman, Cleveland	35	124	127	45	52	10	6	.625
Dorish, Chi.-Balt	48	81	75	37	28	5	3	.625
Trucks, Chicago	32	175	176	58	88	13	8	.619
Score, Cleveland	33	227	158	154	244	16	10	.615
Harshman, Chicago	32	179	144	97	116	11	7	.611
Wynn, Cleveland	32	230	207	80	123	17	11	.607
Pierce, Chicago	33	206	162	64	157	15	10	.600
Grim, New York	26	92	81	41	63	7	5	.583
Sullivan, Boston	35	260	235	101	127	18	13	.581
Kellner, Kansas City	30	163	156	60	77	11	8	.579
Hurd, Boston	43	81	72	38	48	8	6	.571
Mossi, Cleveland	57	82	81	22	69	4	3	.571
Birrer, Detroit	36	80	77	29	28	4	3	.571
Turley, New York	36	247	168	177	210	17	13	.567
Gromek, Detroit	28	181	183	37	72	13	10	.565
Susce, Boston	29	144	123	50	69	9	7	.563
Delock, Boston	29	144	136	61	86	9	7	.563
Nixon, Boston	31	208	207	84	96	12	10	.545
Consuegra, Chicago	44	126	117	18	34	6	5	.545
Gorman, Kansas City	57	109	98	33	47	7	6	.538
Kucks, New York	29	127	122	44	46	8	7	.533
Brewer, Boston	31	193	198	87	92	11	10	.524
Ditmar, Kansas City	35	176	177	87	79	12	12	.500
McDermott, Wash	31	156	139	102	76	10	10	.500
Moore, Baltimore	46	152	131	80	80	10	10	.500
Boyer, Kansas City	30	98	108	69	32	5	5	.500
Kinder, Boston	43	67	57	14	29	5	5	.500
Feller, Cleveland	25	83	71	31	26	4	4	.500
Kiely, Boston	30	95	91	36	36	3	3	.500
Harrington, Kan. City	34	77	75	41	26	3	3	.500
Shea, Washington	27	56	53	27	16	2	2	.500
Coleman, Balt.-Det	23	37	41	27	9	2	2	.500
Lary, Detroit	36	235	230	89	85	14	15	.483
Byrd, Balt.-Chicago	39	156	149	58	67	7	8	.467
Garcia, Cleveland	38	212	230	58	119	11	13	.458
Maas, Detroit	18	87	91	50	42	5	6	.455

National League (Contd.)
Pitching Records

	g	ip	h	bb	so	w	l	pct.
Bessent, Brooklyn	24	63	51	21	29	8	1	.889
Newcombe, Brooklyn	34	234	222	88	143	20	5	.800
Wilhelm, New York	59	103	104	41	70	4	1	.800
Black, Bklyn.-Cinn	38	120	122	30	62	6	2	.750
Smith, St. Louis	28	39	27	23	17	3	1	.750
Labine, Brooklyn	60	145	121	55	67	13	5	.722
Loes, Brooklyn	22	128	116	46	85	10	4	.714
Liddle, New York	33	106	97	61	54	10	4	.714
Meyer, Brooklyn	18	73	86	31	26	5	2	.714
Miller, Philadelphia	40	90	80	28	29	8	4	.667
Maglie, New York	23	130	143	48	71	9	5	.643
Freeman, Cincinnati	52	91	92	29	36	7	4	.636
Craig, Brooklyn	21	91	81	43	48	5	3	.625
Roberts, Philadelphia	41	305	293	53	159	23	14	.622
Burdette, Milwaukee	42	230	254	73	70	13	8	.619
Conley, Milwaukee	22	158	152	52	107	11	7	.611
Friend, Pittsburgh	44	200	178	52	96	14	9	.609
Nuxhall, Cincinnati	50	257	242	77	98	17	12	.586
Erskine, Brooklyn	31	194	185	64	84	11	8	.579
Arroyo, St. Louis	35	159	161	65	71	11	8	.579
Jeffcoat, Chicago	50	103	108	53	32	8	6	.571
Spooner, Brooklyn	29	99	79	41	78	8	6	.571
LaPalme, St. Louis	56	92	76	32	37	4	3	.571
Pollet, Chicago	24	61	62	27	27	4	3	.571
Grissom, New York	55	89	76	39	47	5	4	.556
Spahn, Milwaukee	39	246	248	65	109	17	14	.548
McCall, New York	42	95	85	35	48	6	5	.545
Rush, Chicago	33	234	205	73	131	13	11	.542
Buhl, Milwaukee	33	203	168	109	117	13	11	.542
Schmidt, St. Louis	20	130	89	58	85	7	6	.538
Nichols, Milwaukee	34	144	138	67	44	9	8	.529
Collum, Cincinnati	32	134	128	36	48	9	8	.529
Crone, Milwaukee	33	140	117	42	75	10	9	.526
Fowler, Cincinnati	46	207	198	63	94	11	10	.524
Dickson, Philadelphia	36	216	190	80	90	12	11	.522
Law, Pittsburgh	43	200	219	61	80	10	10	.500
Podres, Brooklyn	27	159	160	57	114	10	10	.500
Simmons, Philadelphia	25	129	148	50	67	8	8	.500
Giel, New York	34	82	70	49	49	4	4	.500
Wright, St. Louis	29	35	43	9	18	2	2	.500
Gomez, New York	33	185	207	63	77	9	10	.474
Klippstein, Cincinnati	39	138	120	54	71	9	10	.474
Antonelli, New York	38	235	206	81	142	14	16	.467
Hearn, New York	39	227	225	65	86	14	16	.467
Wehmeier, Philadelphia	32	193	175	67	86	10	12	.455
Roebuck, Brooklyn	47	84	96	24	33	5	6	.455
Poholsky, St. Louis	30	151	143	34	67	9	11	.450
Haddix, St. Louis	37	209	216	62	150	12	16	.429

Box Scores of 1955 World Series Games

1ST GAME—At New York, Sept. 28

BROOKLYN (N)

	ab	r	h
Gilliam, lf	3	0	0
Reese, ss	5	0	1
Snider, cf	5	1	2
Campanella, c	5	0	0
Furillo, rf	4	2	3
Hodges, 1b	4	0	1
J. Robinson, 3b	4	2	1
Zimmer, 2b	2	0	1
Newcombe, p	3	0	0
Bessent, p	0	0	0
bKellert	1	0	1
cHoak	0	0	0
Labine, p	0	0	0
Total	36	5	10

NEW YORK (A)

	ab	r	h
Bauer, rf	4	0	2
McDougald, 3b	4	0	1
Noren, cf	4	0	0
Berra, c	3	1	1
Collins, 1b	3	3	2
Howard, lf	3	1	1
Martin, 2b	3	0	2
Rizzuto, ss	2	0	0
aE. Robinson	0	0	0
Coleman, ss	1	0	0
Ford, p	2	1	0
Grim, p	0	0	0
Total	29	6	9

aAt bat for Rizzuto in sixth when Martin was out attempting to steal home. bSingled for Bessent in eighth. cRan for Kellert in eighth.

Brooklyn	0	2	1	0	0	0	0	2	0	—5
New York	0	2	1	1	0	2	0	0	..	—6

E—McDougald. RBI—Furillo, Zimmer 2, Howard 2, Snider, Noren, Collins 3. 3B—J. Robinson, Martin. HR—Furillo, Howard, Snider, Collins 2. SB—J. Robinson. Sacrifice fly—Zimmer. Double plays—Zimmer and Hodges; Martin, Rizzuto and Collins; Hodges, Reese and Hodges. LOB—Brooklyn 9, New York 2. BB—Off Ford 4 (Gilliam 2, Furillo, Zimmer), Newcombe 2 (Collins, Ford), Labine 1 (Berra). SO—By Ford 2 (Snider, J. Robinson), Newcombe 4 (McDougald, Howard, Rizzuto, Ford), Grim 2 (Reese, Furillo). Hits—Off Newcombe 8 in 5 2/3 innings, Bessent 0 in 1 1/3, Ford 8 in 8, Labine 1 in 1, Grim 1 in 1. Runs and earned runs—Off Newcombe 6 and 6, Ford 6 and 3. Winner—Ford. Loser—Newcombe.

Umpires—Summers (A), plate; Ballanfant (N), 1b; Honochick (A), 2b; Dascoli (N), 3b; Flaherty (A), lf; Donatelli (N), rf. Time—2:31. Paid attendance—63,869.

2D GAME—At New York, Sept. 29

BROOKLYN (N)

	ab	r	h
Gilliam, lf	4	0	1
Reese, ss	4	1	2
Snider, cf	4	0	1
Campanella, c	3	0	0
Furillo, rf	3	0	0
Hodges, 1b	3	0	0
J. Robinson, 3b	2	1	0
Zimmer, 2b	3	0	1
Loes, p	1	0	0
Bessent, p	0	0	0
cKellert	1	0	0
Spooner, p	0	0	0
dHoak	0	0	0
Labine, p	0	0	0
Total	28	2	5

NEW YORK (A)

	ab	r	h
Bauer, rf	1	0	1
Cerv, cf	3	0	0
McDougald, 3b	4	0	1
Noren, cf, lf	3	0	0
Berra, c	3	1	2
Collins, 1b	3	1	0
Howard, lf, rf	4	1	1
Martin, 2b	3	1	1
Rizzuto, ss	1	0	1
aE. Robinson	0	0	0
bJ. Coleman, ss	1	0	0
Byrne, p	3	0	1
Total	29	4	8

aHit by pitch for Rizzuto in fourth. bRan for E. Robinson in fourth. cHit into double play for Bessent in fifth. dWalked for Spooner in eighth.

Brooklyn	0	0	0	1	1	0	0	0	0	—2
New York	0	0	0	4	0	0	0	0	..	—4

E—Zimmer 2. RBI—Snider, Howard, Martin, Byrne 2, Gilliam. 2B—Reese. Double plays—Campanella and Zimmer; Zimmer, Reese and Hodges; Hodges and Reese; J. Coleman, Martin and Collins; Berra and Martin; J. Coleman and Collins. LOB—Brooklyn 4, New York 5. BB—Off Byrne 5 (Furillo, Campanella, J. Robinson, Hodges, Hoak), Loes 1 (Collins), Spooner 1 (Noren). SO—By Byrne 6 (Gilliam, Zimmer 2, Reese, Snider, Hodges), Loes 5 (McDougald, Collins, Howard, Martin, Cerv), Spooner 5 (McDougald 2, Collins, Martin, J. Coleman), Labine 1 (Berra). Hits—Off Loes 7 in 3 2/3 innings, Bessent 0 in 1/3, Spooner 1 in 3, Labine 0 in 1. Runs and earned runs—Off Loes 4 and 4, Byrne 2 and 2. Hit by pitcher—By Loes (Berra, E. Robinson). Loser—Loes.

Umpires—Ballanfant (N), plate; Honochick (A), 1b; Dascoli (N), 2b; Summers (A), 3b; Flaherty (A), lf; Donatelli (N), rf. Time—2:28. Paid attendance—64,707.

3D GAME—At Brooklyn, Sept. 30

NEW YORK (A)	ab	r	h
Cerv, lf, cf	4	0	0
McDougald, 3b	4	0	1
Berra, c	4	0	1
Mantle, cf, rf	4	1	1
Skowron, 1b	4	1	2
Howard, rf, lf	4	0	0
Martin, 2b	4	0	0
Rizzuto, ss	2	1	1
Turley, p	1	0	0
Morgan, p	0	0	0
aBauer	1	0	0
Kucks, p	0	0	0
bCarey	1	0	1
Sturdivant, p	0	0	0
Total	33	3	7

BROOKLYN (N)	ab	r	h
Gilliam, 2b	3	1	1
Reese, ss	3	1	1
Snider, cf	4	1	1
Campanella, c	5	1	3
Furillo, rf	5	0	1
Hodges, 1b	5	0	0
Robinson, 3b	5	2	2
Amoros, lf	1	1	1
Podres, p	3	1	1
Total	34	8	11

aFlied out for Morgan in fifth. bTripled for Kucks in seventh.

New York	0	2	0	0	0	0	1	0	0	—3
Brooklyn	2	2	0	2	0	0	2	0	. .	—8

E—Campanella. RBI—Campanella 3, Mantle, Gilliam, Reese 2, Furillo, Carey, Amoros. 2B—Skowron, Furillo, Robinson, Campanella. 3B—Carey. HR—Campanella, Mantle. Sacrifice—Podres. Double play—Reese, Gilliam and Hodges. LOB—New York 6, Brooklyn 11. BB—Off Podres 2 (Rizzuto 2), Turley 2 (Reese, Gilliam), Morgan 3 (Reese, Amoros, Snider), Kucks 1 (Amoros), Sturdivant 1 (Gilliam). SO—By Podres 6 (Martin, Cerv 3, Skowron, Howard), Turley 1 (Snider), Morgan 1 (Podres). Hits—Off Turley 3 in 1 1/3 innings, Morgan 3 in 2 2/3, Kucks 1 in 2, Sturdivant 4 in 2. Runs and earned runs—Off Turley 4 and 4, Morgan 2 and 2, Sturdivant 2 and 2, Podres 3 and 2. Hit by pitcher—By Turley (Amoros). Loser—Turley.

Umpires—Honochick (A), plate; Dascoli (N), 1b; Summers (A), 2b; Ballanfant (N), 3b; Donatelli (N), lf; Flaherty (A), rf. Time—2:20. Paid attendance—34,209.

4TH GAME—At Brooklyn, Oct. 1

NEW YORK (A)	ab	r	h
Noren, cf	5	0	1
McDougald, 3b	5	1	1
Mantle, rf	5	0	1
Berra, c	3	0	1
Collins, 1b	2	2	0
Howard, lf	3	1	1
Martin, 2b	4	1	2
Rizzuto, ss	3	0	1
Larsen, p	2	0	0
Kucks, p	0	0	0
aE. Robinson	1	0	1
bCarroll	0	0	0
R. Coleman, p	0	0	0
Morgan, p	0	0	0
cSkowron	1	0	0
Sturdivant, p	0	0	0
Total	34	5	9

BROOKLYN (N)	ab	r	h
Gilliam, 2b	4	1	2
Reese, ss	4	1	2
Snider, cf	4	1	1
Campanella, c	5	2	3
Furillo, rf	5	1	2
Hodges, 1b	4	1	3
J. Robinson, 3b	4	0	0
Amoros, lf	3	1	1
Erskine, p	1	0	0
Bessent, p	1	0	0
Labine, p	2	0	0
Total	37	8	14

aSingled for Kucks in sixth. bRan for E. Robinson in sixth. cFlied out for Morgan in eighth.

New York	1	1	0	1	0	2	0	0	0	—5
Brooklyn	0	0	1	3	3	0	1	0	. .	—8

E—None. RBI—McDougald, Rizzuto, Gilliam, Martin 2, Campanella, Hodges 3, Snider 3, E. Robinson. 2B—Gilliam, Campanella, Martin. HR—McDougald, Campanella, Hodges, Snider. SB—Rizzuto, Collins, Gilliam. Sacrifices—Howard, Reese. Double play—J. Robinson, Gilliam and Hodges. LOB—New York 7, Brooklyn 9. BB—Off Erskine 2 (Collins 2), Bessent 1 (Berra), Labine 1 (Rizzuto), Larsen 2 (Amoros, Gilliam), Sturdivant 1 (Snider). SO—By Erskine 3 (Noren, Mantle 2), Bessent 1 (McDougald), Larsen 2 (Furillo, Bessent), Kucks 1 (Furillo), R. Coleman 1 (Labine). Hits—Off Erskine 3 in 3 innings (faced two batters in fourth), Bessent 3 in 1 2/3, Larsen 5 in 4 (faced one batter in fifth), Kucks 3 in 1, R. Coleman 5 in 1 (faced three batters in seventh), Morgan 0 in 1; Sturdivant 1 in 1, Labine 3 in 4 1/3. Runs and earned runs—Off Erskine 3 and 3, Larsen 5 and 5, Kucks 2 and 2, R. Coleman 1 and 1, Labine 2 and 2. Winner—Labine. Loser—Larsen.

Umpires—Dascoli (N), plate; Summers (A), 1b; Ballanfant (N), 2b; Honochick (A), 3b; Donatelli (N), lf; Flaherty (A), rf. Time—2:57. Paid attendance—36,242.

SOFTBALL

Amateur Softball Assn. Champions

Men—Raybestos Cardinals, Stratford, Conn., beat Clearwater (Fla.) Bombers, 2 to 0, in final.
Women—Orange (Calif.) Lionettes beat Phoenix (Ariz.) Ramblers, 4-1, in final.

5TH GAME—At Brooklyn, Oct. 2

NEW YORK (A)	ab	r	h
Howard, lf	4	0	1
Noren, cf	4	0	0
McDougald, 3b	3	0	0
Berra, c	4	2	2
Collins, rf, 1b	3	0	0
E. Robinson, 1b	2	0	1
cCarroll	0	0	0
Bauer, rf	0	0	0
Martin, 2b	4	0	1
Rizzuto, ss	1	0	0
aSkowron	1	0	0
J. Coleman, ss	1	0	0
dCarey	1	0	0
Grim, p	2	0	0
bCerv	1	1	1
Turley, p	0	0	0
eByrne	1	0	0
Total	32	3	6

BROOKLYN (N)	ab	r	h
Gilliam, 2b	3	0	1
Reese, ss	3	0	0
Snider, cf	4	2	3
Campanella, c	3	0	0
Furillo, rf	4	1	1
Hodges, 1b	3	1	2
J. Robinson, 3b	3	0	1
Amoros, lf	4	1	1
Craig, p	0	0	0
Labine, p	2	0	0
Total	29	5	9

aFouled out for Rizzuto in fourth. bHit homer for Grim in seventh. cRan for E. Robinson in eighth. dGrounded out for J. Coleman in ninth. eGrounded out for Turley in ninth.

New York	0	0	0	1	0	0	1	1	0	—3
Brooklyn	0	2	1	0	1	0	0	1	. .	—5

E—Reese, J. Robinson. RBI—Amoros 2, Snider 2, Martin, Cerv, Berra, J. Robinson. 2B—Snider. HR—Amoros, Snider 2, Cerv, Berra. Sacrifices—Craig Hodges. Double plays—Gilliam, Reese and Hodges; Martin and E. Robinson; J. Coleman, Martin and E. Robinson; Hodges, Reese and Hodges; J. Robinson, Gilliam and Hodges. LOB—New York 7, Brooklyn 7. BB—Off Craig 5 (Collins, E. Robinson 2, McDougald, Howard), Grim 4 (Reese, Craig, J. Robinson, Campanella), Turley 1 (Gilliam). SO—By Craig 4 (Howard 2, Collins, E. Robinson), Labine 1 (Collins), Grim 5 (Campanella, Furillo, Hodges, Amoros 2), Turley 5 (Labine 2, Reese, Campanella, Amoros). Hits—Off Craig 4 in 6 innings (faced two batters in seventh), Grim 6 in 6, Turley 3 in 2, Labine 2 in 3. Runs and earned runs—Off Craig 2 and 2, Grim 4 and 4, Turley 1 and 1, Labine 1 and 1. Winner—Craig. Loser—Grim.

Umpires—Summers (A), plate; Ballanfant (N), 1b; Honochick (A), 2b; Dascoli (N), 3b; Donatelli (N), lf; Flaherty (A), rf. Time—2:40. Paid attendance—36,796.

6TH GAME—At New York, Oct. 3

BROOKLYN (N)	ab	r	h
Gilliam, 2b, lf	3	0	1
Reese, ss	4	1	1
Snider, cf	1	0	0
aZimmer, 2b	2	0	0
Campanella, c	3	0	0
Furillo, rf	3	0	1
Hodges, 1b	3	0	0
J. Robinson, 3b	4	0	0
Amoros, lf, cf	4	0	1
Spooner, p	0	0	0
Meyer, p	2	0	0
cKellert	1	0	0
Roebuck, p	0	0	0
Total	30	1	4

NEW YORK (A)	ab	r	h
Rizzuto, ss	3	1	0
Martin, 2b	4	0	1
McDougald, 3b	3	1	0
Berra, c	3	1	2
Bauer, rf	4	1	3
Skowron, 1b	2	1	1
bCollins, 1b	1	0	0
Cerv, cf	4	0	1
Howard, lf	4	0	0
Noren, lf	0	0	0
Ford, p	4	0	0
Total	32	5	8

aStruck out for Snider in fourth. bWalked for Skowron in fifth. cPopped out for Meyer in seventh.

Brooklyn	0	0	0	1	0	0	0	0	0	—1
New York	5	0	0	0	0	0	0	0	. .	—5

E—J. Robinson. RBI—Berra, Bauer, Skowron 3, Furillo. HR—Skowron. SB—Rizzuto. Double plays—McDougald, Martin and Skowron; J. Robinson and Hodges. LOB—Brooklyn 7, New York 7. BB—Off Ford 4 (Hodges, Campanella, Zimmer, Gilliam), Spooner 2 (Rizzuto, McDougald), Meyer 2 (Berra, Collins). SO—By Ford 8 (Reese, Snider, Meyer, Zimmer 2, Campanella, Furillo, Amoros), Spooner 1 (Martin), Meyer 4 (Howard 3, Martin). Hits—Off Spooner 3 in 1/3 inning, Meyer 4 in 5 2/3, Roebuck 1 in 2. Runs and earned runs—Off Spooner 5 and 5, Ford 1 and 1. Hit by pitcher—By Ford (Furillo). Wild pitch—Ford. Loser—Spooner.

Umpires—Ballanfant (N), plate; Honochick (A), 1b; Dascoli (N), 2b; Summers (A), 3b; Flaherty (A), lf; Donatelli (N), rf. Time—2:34. Paid attendance—64,022.

The Wichita (Kan.) Boeing Bombers retained the National Baseball Congress (semi-professional) championship in 1955.

7TH GAME—At New York, Oct. 4

BROOKLYN (N)	ab	r	h
Gilliam, lf, 2b..	4	0	1
Reese, ss.....	4	1	1
Snider, cf.....	3	0	0
Campanella, c...	3	1	1
Furillo, rf.....	3	0	0
Hodges, 1b.....	2	0	1
Hoak, 3b.....	3	0	1
Zimmer, 2b.....	2	0	0
aShuba.....	1	0	0
Amoros, lf.....	0	0	0
Podres, p.....	4	0	0
Total.....	29	2	6

NEW YORK (A)	ab	r	h
Rizzuto, ss.....	3	0	1
Martin, 2b.....	3	0	1
McDougald, 3b..	4	0	3
Berra, c.....	4	0	1
Bauer, rf.....	4	0	0
Skowron, 1b....	4	0	1
Cerv, cf.....	4	0	0
Howard, lf.....	4	0	1
Byrne, p.....	2	0	0
Grim, p.....	0	0	0
bMantle.....	1	0	0
Turley, p.....	0	0	0
Total.....	33	0	8

aGrounded out for Zimmer in sixth. bPopped out for Grim in seventh.

Brooklyn.....	0	0	0	1	0	1	0	0	0	0—2
New York.....	0	0	0	0	0	0	0	0	0	0—0

E—Skowron. RBI—Hodges 2. 2B—Skowron, Campanella, Berra. Sacrifices—Snider, Campanella. Sacrifice fly—Hodges. Double play—Amoros, Reese and Hodges. LOB—Brooklyn 8, New York 8. BB—Off Byrne 3 (Hodges, Gilliam, Furillo), Grim 1 (Hoak), Turley 1 (Amoros), Podres 2 (Rizzuto, Martin). SO—By Byrne 2 (Snider, Zimmer), Grim 1 (Reese), Turley 1 (Snider), Podres 4 (McDougald, Byrne 2, Bauer. Hits—Off Byrne 3 in 5 1/3 innings, Grim 1 in 1 2/3, Turley 1 in 2. Runs and earned runs—Off Byrne 2 and 1. Wild pitch—Grim. Loser—Byrne.

Umpires—Honochick (A), plate; Dascoli (N), 1b; Summers (A), 2b; Ballanfant (N), 3b; Flaherty (A), lf; Donatelli (N), rf. Time—2:44. Paid attendance—62,465.

YACHTING

Source: John Rendel, *The New York Times.*

Distance Racing

Newport to Marstrand, Sweden—Richard S. Nye's Carina (yawl), Greenwich, Conn.
Havana to San Sebastian, Spain—Enrique Urrutia's Mare Nostrum (yawl), Spain
Los Angeles to Honolulu—Ira P. Fulmor's Staghoung (ketch)
Eastnet Race (England)—Carina
Gotland Race (Sweden)—W. S. Gubelmann's Windigo (yawl), United States
Chicago-Mackinac Island—Norman Sarns' Revelry (sloop), Detroit
Port Huron-Mackinac Island—Jim Carlin's Glory Bea II (sloop)
New London-Annapolis—Henry Sears' Actaea (sloop), New York
Mount Desert, Maine—Robert L. Hall's Nimrod V (cutter), Huntington, N. Y.
Manchester, Mass.-Halifax—Daniel D. Strohmeier's Malay (yawl), Padanaram, Mass.
Southern Ocean Racing Conference—Worth Brown's, Charles Ulmer's and Woody Pirie's Hoot Mon (yawl), Miami, Fla.

International

One-ton Cup (six-meter)—Andre Firmenich's Yllian IX, Switzerland
British-American Cup (six-meter)—United States
Gold Cup (5.5-meter)—M. Oberti's Twins VII, Italy
Norway-Manhasset Bay, N. Y.—Norway
Buzzards Bay Bowl—Canada
Bermuda-Long Island Sound (Amorita Cup)—Spring, Bermuda; fall, United States

Other Champions

Men's North American (Mallory Cup)—Bill Buchan, Jr., Seattle
Raven National—P. James Roosevelt, Oyster Bay, N. Y.
110-Class International—Cornelius Shields, Jr., Larchmont, N. Y.
National Women's (Adams Trophy)—Manhasset Bay Yacht Club, N. Y. (Toni Monetti, skipper)
Junior National (Sears Cup)—Royal Canadian Y. C., Toronto
World Snipe—Mario Capio, Italy
National Snipe—Harry Allen, Westport, Conn.
North American intercollegiate dinghy (Morss Trophy)—M. I. T. (Alain de Berc, skipper)
North American Star—Jorge de Cardenas, Havana
International Comet—Howard Lippincott, Riverton, N. J.
Rebel National—Dr. Robert Wilson, Grenville, Ohio
Moth National—Sonny Cabell, Norfolk, Va.

Series Batting Records

BROOKLYN NATIONALS

	G	AB	R	H	2B	3B	HR	RBI	BB	SO	BAT. AVG.
Gilliam, lf, 2b....	7	24	2	7	1	0	0	3	8	1	.292
Reese, ss.....	7	27	5	8	1	0	0	2	3	5	.296
Snider, cf.....	7	25	5	8	1	0	4	7	2	6	.320
Campanella, c...	7	27	4	7	3	0	2	4	3	3	.259
Furillo, rf.....	7	27	4	8	1	0	1	3	3	5	.296
Hodges, 1b.....	7	24	2	7	0	0	1	5	3	2	.292
J. Robinson, 3b..	6	22	5	4	1	1	0	1	2	1	.182
Zimmer, 2b.....	4	9	0	2	0	0	0	2	2	5	.222
*Shuba.....	1	1	0	0	0	0	0	0	0	0	.000
Amoros, lf, cf....	5	12	3	4	0	0	1	3	4	4	.333
Newcombe, p.....	1	3	0	0	0	0	0	0	0	0	.000
Bessent, p.....	3	1	0	0	0	0	0	0	0	1	.000
*Kellert.....	3	3	0	1	0	0	0	0	0	0	.333
Hoak, 3b.....	3	3	0	1	0	0	0	0	2	0	.333
Labine, p.....	4	4	0	0	0	0	0	0	0	3	.000
Loes, p.....	1	1	0	0	0	0	0	0	0	0	.000
Spooner, p.....	2	0	0	0	0	0	0	0	0	0	.000
Podres, p.....	2	7	1	1	0	0	0	0	0	1	.143
Erskine, p.....	1	1	0	0	0	0	0	0	0	0	.000
Craig, p.....	1	0	0	0	0	0	0	0	1	0	.000
Meyer, p.....	1	2	0	0	0	0	0	0	0	1	.000
Roebuck, p.....	1	0	0	0	0	0	0	0	0	0	.000
Total.....		223	31	58	8	1	9	30	33	38	.260

NEW YORK AMERICANS

	G	AB	R	H	2B	3B	HR	RBI	BB	SO	BAT. AVG.
Bauer, rf.....	6	14	1	6	0	0	0	1	0	1	.429
Cerv, cf, lf.....	5	16	1	2	0	0	1	1	0	4	.125
McDougald, 3b...	7	27	2	7	0	0	1	1	2	6	.259
Noren, cf, lf.....	5	16	0	1	0	0	0	1	1	1	.063
Berra, c.....	7	24	5	10	1	0	1	2	3	1	.417
Mantle, cf, rf....	3	10	1	2	0	0	1	1	0	2	.200
Collins, 1b, rf....	5	12	6	2	0	0	2	3	6	4	.167
Skowron, 1b.....	5	12	2	4	2	0	1	3	0	1	.333
Howard, lf, rf....	7	26	3	5	0	0	1	3	1	8	.192
Martin, 2b.....	7	25	2	8	1	1	0	4	1	5	.320
Rizzuto, ss.....	7	15	2	4	0	0	0	1	5	1	.267
E. Robinson, 1b..	4	3	0	2	0	0	0	1	2	1	.667
J. Coleman, ss...	3	3	0	0	0	0	0	0	0	1	.000
†Carroll.....	2	0	0	0	0	0	0	0	0	0	.000
Ford, p.....	2	6	1	0	0	0	0	0	1	1	.000
Grim, p.....	3	2	0	0	0	0	0	0	0	0	.000
Byrne, p.....	3	6	0	1	0	0	0	2	0	2	.167
Turley, p.....	3	1	0	0	0	0	0	0	0	0	.000
Morgan, p.....	2	0	0	0	0	0	0	0	0	0	.000
Kucks, p.....	2	0	0	0	0	0	0	0	0	0	.000
*Carey.....	2	2	0	1	0	1	0	1	0	0	.500
Sturdivant, p....	2	0	0	0	0	0	0	0	0	0	.000
Larsen, p.....	1	2	0	0	0	0	0	0	0	0	.000
R. Coleman, p...	1	0	0	0	0	0	0	0	0	0	.000
Total.....		222	26	55	4	2	8	25	22	39	.248

* Pinch hitter. † Pinch runner.

OTHER 1955 SERIES STATISTICS

Final Standing of the Clubs

	Won	Lost	Pct.
Brooklyn Dodgers.....	4	3	.571
New York Yankees.....	3	4	.429

Seven-Game Totals

Paid attendance—362,310.
Net receipts—$2,337,515.34.
Commissioner's share—$350,627.30.
Players' share—$654,853.59.
Clubs' and leagues' share—$1,332,034.45.

WEIGHT LIFTING

United States Champions

Class	Press	Snatch	C & J	Total
123 lb.—Charles Vinci, Jr.....	215	215	260	690
132 lb.—Isaac Berger...	225	205	275	705
148 lb.—Joe Pitman....	230	230	305	765
165 lb.—Dick Giller....	245	245	310	800
181 lb.—Tommy Kono.	310	270	360	940
198 lb.—Dave Sheppard	295	300	370	965
Heavy.—Paul Anderson	390	320	435	1145

TENNIS

Davis Cup (men)—Australia beat U. S., 5 to 0, at Forest Hills, N. Y.
Wightman Cup (women)—U. S. beat England, 6 to 1, at Rye, N. Y.

Wimbledon Champions

Singles—Tony Trabert, Cincinnati
Women's singles—Louise Brough, Beverly Hills, Calif.
Doubles—Lew Hoad-Rex Hartwig, Australia
Women's doubles—Angela Mortimer-Ann Shilcock, England
Mixed doubles—E. Victor Seixas, Jr., Philadelphia-Doris Hart, Coral Gables, Fla.

United States

Singles—Tony Trabert
Women's singles—Doris Hart
Doubles—Kosei Kamo-Atsushi Miyagi, Japan
Women's doubles—Louise Brough, Beverly Hills, Calif.-Mrs. Margaret O. du Pont, Wilmington, Del.
Mixed doubles—E. Victor Seixas, Jr.-Doris Hart
Junior singles—Estaban Reyes, Mexico City
Junior doubles—Gregory Grant, San Marino, Calif.-Juan Jose, Manila
Boys' singles—Ned Neely, Atlanta, Ga.
Boys' doubles—Earl Buchholz, St. Louis-Ned Neely
Interscholastic singles—Crawford Henry, Grady High, Atlanta, Ga.
Interscholastic doubles—Robert Macy-John Skogstad, Coral Gables (Fla.) High
Girls' singles (18 and under)—Barbara Breit, North Hollywood, Calif.
Girls' doubles (18 and under)—Diane Wooton, Santa Monica, Calif.-Barbara Breit
Girls' singles (15 and under)—Donna Floyd, Arlington, Va.
Girls' doubles (15 and under)—Sally Moore, Bakersfield, Calif.-Albertina Rodi, Beverly Hills, Calif.
Senior singles—R. Philip Hanna, New York
Senior doubles—Edward Chandler-Gerald Stratford, San Francisco
Women's senior singles—Mrs. Nell Hopman, Australia
Women's senior doubles—Mrs. Shaw McKean, South Hamilton, Mass.-Mrs. Richard Buck, Manchester, Mass.

CLAY COURT

Singles—Tony Trabert
Women's singles—Mrs. Dorothy H. Knode, Forest Hills, N. Y.
Doubles—Ham Richardson, Westfield, N. J.-Tony Trabert
Women's doubles—Janet Hopps, Seattle-Mrs. Dorothy H. Knode

PUBLIC PARKS

Singles—Clyde Hippenstiel, San Bernardino, Calif.
Women's singles—June Stack, Hamtramck, Mich.

INTERCOLLEGIATE

Singles—Jose Aguero, Tulane
Doubles—Pancho Contreras-Joaquin Reyes, Southern California
Team—Southern California (12 pts.)

INDOOR

Singles—Tony Trabert
Women's singles—Kay Hubbell, North Conway, N. H.
Doubles—E. Victor Seixas, Jr.-Tony Trabert
Women's doubles—Ruth Jeffery, Melrose, Mass.-Kay Hubbell
Mixed doubles—Wallace McIntyre, Chestnut Hill, Mass.-Ruth Jeffery

Bennett Grand American Victor

Logan Bennett of Hodgenville, Ky., topped a record trapshooting field of 2,024 in the 1955 Grand American Handicap at Vandalia, Ohio. The 39-year-old Bennett broke 99 of 100 targets from 19 yards out to capture the outstanding prize in the sport. Mrs. Dolly Isetts of Kenosha, Wis., took the women's title with 93 x 100; R. L. Schwieger of Grand Island, Neb., was the junior victor with 95 x 100, and George Heaney of Indianapolis led the professionals with 94 x 100.

CONTRACT BRIDGE, 1954-55

Source: American Contract Bridge League.

Champions

National open individual—Dr. Kermit Chadwick, Edgewater Park, Miss.
Master mixed pairs—Mrs. Betty Windley, Norfolk, Va., and Said Haddad, Washington, D. C.
National women's team—Mrs. Marguerite Harris and Mrs. Richard H. Ecker, New York; Mrs. R. B. Fuller, Tarrytown, N. Y., and Mrs. Max Matz, Miami Beach, Fla.
National men's team—Jeff Glick, Miami Shores, Fla.; Arthur S. Goldsmith and Aaron Frank, Cleveland, Sol Mogal and Alvin Landy, New York
National open pairs—Paul H. Hodge, Abilene, Tex., and George Heath, Dallas
National non-master pairs—Dr. Stephen Gernazian, Atlanta, Ga., and E. J. Earley, Decatur, Ga.
Life master individual—Norman Kay, Merchantville, N. J.
Senior master individual—W. W. Williams, Jr., Raleigh, N. C.
Vanderbilt Cup team—John R. Crawford and Sidney Silodor, Philadelphia; B. Jay Becker, George Rapee and Howard Schenken, New York
National mixed team—Mrs. Terry Michaels and Alvin Roth, Washington, D. C.; Mrs. Gratian Goldstein, Leland Ferer and Harry Harkavy, Miami Beach, Fla.
Master knockout team—Samuel M. Stayman, Myron Field, Richard F. Kahn and Lee Hazen, New York; Charles J. Solomon, Philadelphia
Life master pairs—Ben Fain, Houston, and Paul H. Hodge
Master pairs—Stanley Rappaport and Herschel Wolpert, Minneapolis
National men's pairs—Douglas Drury and Eric Murray, Toronto
National women's pairs—Mrs. Margaret Wagar, Atlanta, Ga., and Mrs. Kay Rhodes, New York
National non-master team—Bryce McAdam, Stanley Lefler, Mitchell D. Edelson, Chicago, and Ross M. Sherrill, Evanston, Ill.
World team—Terence Reese, Boris Schapiro, Jordanis Pavlides, Kenneth Konstam, Leslie Dodds, Adam Meredith and Reginal Corwen (non-playing captain), all of Great Britain

POLO

National Outdoor Champions

Open—Triple C (A. D. Beveridge, Dr. William Linfoot, Paul Barry, Harold Barry)
20-goal—San Antonio Triple C (Vic Graber, William Wayman, Dr. William Linfoot, Harold Barry)
Paul Butler Handicap—Meadow Brook (Hugo Dalmar, George H. Bostwick, Alan L. Corey, Jr., Devereux Milburn, Jr.)

Indoor Champions

National senior—Squadron A, New York (Philip Brady, John F. Ivory, Jr., George C. Sherman, Jr.)
National 12-goal—New York Athletic Club (Fred Rice, Zenas Colt, Herb Pennell)
National intercollegiate—Cornell (A. Mitchell, C. Saenz, A. Santa Maria)
Sherman Memorial tournament—Huntington (Raymond Koch, Vincent Rizzo, Joseph Rizzo)
Eastern 12-goal—New York A. C. (Rice, Pennell, Colt)

WATER SKIING

NATIONAL CHAMPIONSHIPS

(At Lakeland, Fla.)

Men—Butch Rosenberg, Winter Haven, Fla.
Women—Willa McGuire, Winter Haven, Fla.
Veterans—Earl Hollowell, Panama City, Fla.
Junior boys—Charles Stearns
Junior girls—Mary Ann Moenert

TOURNAMENT RECORDS

World jumping—125 feet, by Butch Rosenberg, Aug. 28, at Lakeland, Fla.
Veterans—76 feet, Earl Hollowell
Junior boys—88 feet, Bob Marotti
Junior girls—60 feet, Mary Ann Moenert

DOG SHOWS

Westminster best-in-show—Dr. John A. Saylor's Ch. Kippax Fearnought (bulldog). Long Beach, Calif.
Morris and Essex best-in-show—Mr. and Mrs. John P. Wagner's Ch. Baroque of Quality Hill (boxer). Chicago.

INDEX

Compiled by

ROBERT E. GRAYSON

Director, Editorial Library, *New York Herald Tribune*

— A —

AM. *See* Amplitude modulation
Abbreviations:
Academic degrees, 133
Chemical elements, 432–33
Weights & measures, 427
Aberdeen, S. Dak., 267
Abilene, Kans., 257
Absolute zero, 428
Abyssinia. *See* Ethiopia
Academic degrees, 131, 133
Academies: Service, 341–42
Academy awards, 465–66
Academy of Natural Sciences of Philadelphia, 318
Acadia National Park, 315
Accidents:
Aviation: famous, 694–95
Death rates, 117, 118, 120
Deaths: frequency, 113
Motor-vehicle: deaths, 117, 119
Railroad: famous, 696
Transportation: deaths, 120
Aconcagua, 670
Acronym: Defined, 151
Actium, Battle of, 698
Actors and Actresses, 218–39
Adams, John:
Biography, 368
Cabinet, 393
Election, 356
Family, 383
Hall of Fame, 468
Adams, John Quincy:
Biography, 370
Cabinet, 393
Election, 356
Family, 383
Hall of Fame, 468
Minority President, 419
Adamson Act, 329
Adding machine: Invention, 434
Addis Ababa, Ethiopia, 572
Address, Forms of, 178–80
Aden, 537
Area & population, 515
Adler Planetarium, 500
Admirals: Armed Forces, 392
Admiralty Islands, 547
Admission to Union: States, 251–71
Advent, 453
Advertising, 720
Afghanistan:
General information, 501–02
Diplomats: U. S., 339
United Nations, 743
Africa:
Area, 669
British Commonwealth, 522–30
Dimensions, 669
Elevations, 669
Exploration, 667
French territories, 579–84
Map, 79
Museums, 685
Political changes, 149
Population, 92, 669
Religions, 437
World War II, 145
Agate (measure), 428
Agencies:
U.N., 746–47
U. S., 390–91, 392
Agents: Establishments, 722
Agincourt, Battle of, 700
Agriculture:
Animals: on farms, 725, 726
Employment, 719, 727
FAO, 746
Farms: number, 725
Income, 725
Legislation, 329–33
Prices: index, 723
Production: by state, 726
Production: world, 707–08
Schools, 129
See also Farms; Food
Agriculture, U. S. Dept. of, 390, 392
School lunch program, 128
Secretaries, 395–96
Aid. *See* Foreign aid
Air, 499
Composition, 30
Air brake: Invention, 434
Air carriers: Traffic, 723
Air Force (U. S.):
Academy, 342
Airplanes: types, 475
Allowances, 344, 345
History, 343
Legislation, 334, 335
Officers, 344, 392
Pay, 338, 344, 345
Personnel, 348
Ranks, 344
Air mail:
First service, 470
First transcontinental, 702
Foreign: rates, 353
U. S.: rates, 350
Air mileages, 290–93
Air parcel post, 350, 353
Air pump: Invention, 434
Airbases: U. S., 68–69, 76
Airlift: Berlin, 146
Airlines:
Countries: leading, 708
Pilots: number, 473
Scheduled, 473
Airplanes:
Accidents, 694–95
Death rates, 120
Firsts, 469 71
Freight, 723
Invention, 434
Passengers, 473, 723
Types, 474–75
See also Aviation
Airport: Largest, 264
Aisne, Battle of, 702
Akron, Ohio:
General information, 275
Government, 286
Newspaper: leading, 294
Population: growth, 97
Akron (dirigible), 695
Alabama:
General information, 251
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 115, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting qualifications, 367

We have endeavored to prepare the INDEX for easy use by professional researchers and the average Mr. and Mrs. Public. This goal presents many difficulties and we modestly hope we have succeeded. Where we have failed we would appreciate your help. If you cannot find anything quickly and you think it's our fault, kindly send suggestions and criticisms to:

THE INFORMATION PLEASE ALMANAC
444 Madison Avenue
New York 22, N. Y.

Alabama Museum of Natural History, 319
Alameda, Calif., 97
Alamo, Battle of, 701
Alamogordo, N. Mex., 263
Aland Islands, 575
Alaska:
- **General information,** 271–72
- Congress: member, 388
- Education: funds, 128
- Executions: method, 126
- Holidays, 454
- Map, 80
- National Convention: delegates, 354
- Statehood, 337
- Time zones, 477
- Unemployment: compensation, 741
- Volcanoes, 677

Alaska Current, 33
Alaska Highway: Map, 80
Albania:
- **General information,** 502–03

Albany, N. Y., 264
- Area, 97
- Longitude & latitude, 491
- Magnetic declination, 491
- Newspaper: leading, 294
- Population, 97
- Time of day, 491

Alberta (province), 534
Albright Gallery, 319
Albuquerque, N. Mex., 97, 263
Alcohol. *See* Liquor
Aleutians:
- Islands, 271–72
- Volcanoes, 677

Alexander the Great, 698
Alexandria, Egypt, 568
- Pharos, 663

Alexandria, Va., 97, 269
Alfonso XIII: Abdicates, 141
Algeria, 579–80
- Area & population, 577
- Earthquake, 692
- Minerals: rating, 706
- Trade: with U. S., 733
- United Nations, 21

Algiers, Algeria, 579
Alhambra (bldg.), 687
Alhambra, Calif., 97
Alien and Sedition Acts, 323
Alien Registration Act, 333
All America Conference. *See* Football
All-Star games, 775, 865
Allegheny River, 136
Allentown, Pa., 97
Allies (World War I), 150
Alphabet. *See* Letters
Alps, 652
- Avalanch, 692

Altitudes:
- Aviation: records, 472, 473
- Cities: U. S., 275–84
- Deserts, 673
- Lakes, 675
- Mountain peaks, 134, 670
- States: U. S., 135
- United States, 134
- World, 669

Altoona, Pa., 97
Aluminum:
- Hall process, 435
- Imports, 731
- Production: U. S., 717
- Production: world, 703

Amarillo, Tex.:
- Area, 97
- Longitude & latitude, 491
- Magnetic declination, 491
- Population, 97
- Time of day, 491

Amateur radio stations, 299
Amazon, 674
Ambassador Bridge, 689
Ambassadors: To & from U. S., 339–40
Amendments: Constitution, 415–18
American Academy of Arts and Letters, 317
American Bible Society, 703
American Broadcasting Company, 297
American Derby, 827, 857
American economy, 705–34
American Federation of Labor, 721
- Merger plan with CIO, 8

American Labor party, 361–65
American League. *See* Baseball
American Museum of Natural History, 317
American party, 357
American Revolution:
- Casualties, 347
- Events, 698

American Samoa, 273
American's Creed, 424
Amplitude Modulation: Defined, 151
Amsterdam, Netherlands:
- Library, 683
- Longitude & latitude, 490
- Museum, 684
- Population, 626
- Time of day, 490
- Zoo, 686

Amu Darya, 674
Amur, 674
Amusement:
- Consumer spending, 712
- Establishments, 720
- Price index, 712

Anchorage, Alaska, 271
Ancient empires, 680
Andaman and Nicobar Islands, 542
Andaman Sea, 671
Andorra, 579
Angel Falls, 672
Angelus Temple, 441
Anglo-Egyptian Sudan. *See* Sudan
Angola, 641
- Trade: with U. S., 733

Angstrom, 428
Animals:
- Classification, 435
- Farm, 725, 726
- Gestation, incubation & longevity, 673
- Names of males, females, young, 207

Annam, 585–86
Annapolis, Md., 259
- Naval Academy, 341

Antarctica:
- Area, 669
- Discovered, 668
- Elevations, 669
- Exploration, 668

Anthem, National, 421
Anthracite. *See* Coal
Anthropology: Races, 436
Antietam, Battle of, 698
Anti-Federalist party, 356
Antigua, 536
Antilles, Netherlands, 628
Antimasonic party, 356
Antimony: Production, 706
Antipopes: List, 447
Antitoxin: Diptheria, 435
Antitrust laws, 329, 331
Antwerp, Belgium, 507, 685
Anzio, Italy, 145
Apothecaries weight, 426
Apparel. *See* Clothing
Appendicitis: Death rates, 117
Apples: Farm prices, 725
Arabia, 503
- *See also* Saudi Arabia; Yemen

Arabian Desert, 673
Arabs. *See* Israel; individual Arab nations
Aral, Lake, 675
Archbishops:
- Canterbury, 450
- Roman Catholic, 443–45

Archery, 861
Architecture:
- Buildings: tallest, 696
- Structures: famous, 686–88

Arctic: Exploration, 668
Arctic Ocean, 671
Are (meas.), 425
Area:
- Continents, 669
- Countries, 690
- Deserts, 673
- Formulas for, 427
- Islands, 671
- Lakes, 673
- Measures of, 426
- Oceans & seas, 671
- U. S.: cities, 97–100
- U. S.: growth, 90
- U. S.: states, 96
- U. S.: water, 137

Argentina:
- **General information,** 504–06
- **Perón, ousted; Lonardi prov. Pres.,** 14
- Agriculture: rating, 707, 708
- Death rate, 710
- Diplomats: U. S., 339
- Holiday, national, 670
- Navy: rating, 710
- Trade, 732, 733
- United Nations, 743
- Volcanoes, 667

Aristotle, 680
Arizona:
- **General information,** 251
- Accidental death rates, 118
- Agriculture: statistics, 726, 727
- Altitudes, 135
- Area: land, 96
- Births: number, 109
- Congress: members, 384, 386
- Death rates, 118
- Deaths: infants, 115
- Deaths: motor-vehicle, 119
- Deaths: number, 115
- Divorces: statistics, 106, 107
- Economy: statistics, 726, 727
- Education: statistics, 127, 130
- Elections: statistics, 359–66
- Executions: method, 126
- Families: number, 113
- Government, 285
- Highest, lowest points, 135
- Holidays, 454
- Hospitals: number, 120
- Map, 82
- Marriages: statistics, 105
- Motor vehicles: deaths caused by, 119
- Motor vehicles: laws, 287
- Newspapers: number, 296
- Population: density, 96
- Population: growth, 96
- Population: marital status, 104
- Time zone, 86
- Unemployment: compensation, 741

Voting: qualifications, 367
Arkansas:
General information, 252
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Arkansas River, 136
Arlington Stakes, 828, 857
Armada, Spanish, 701
Armed forces (U. S.):
Academies: service, 341–42
Airplanes, 475
Allowances, 344, 345
Armed Forces Day, 423
Casualties, 347–48
Construction, 716
History, 343
Insignia, 344
Military interventions, 382
Officers, 344, 392
Pay, 344–47
Personnel: by year, 348
Ranks, 344, 345
Veterans' benefits, 332, 349
See also Selective Service
Armed forces (world), 346, 710
Armed Neutrality Act, 329, 332, 333
Armenia. *See* U.S.S.R.
Armistice Day, 452, 454
Army (U. S.):
Allowances, 344, 345
Casualties, 347–48
Court martial cases, 126
Expenditure, 729
History, 343
Insignia, 344
Legislation, 334, 335
McCarthy dispute, 148
Military Academy, 341
Officers, 344, 392
Pay, 344–47
Personnel: by year, 348
Ranks, 344, 345
Reserve, 338
Arrests: By sex & age, 125
"Arsenal of Democracy," 144
"Arsenal of the Nation," 253
Art museums:
United States, 317–21
World, 684–85
Artemis: Temple of, 668
Arthur, Chester A.:
Biography, 375
Cabinet, 395
Family, 383
Articles of Confederation, 420
Aruba, 628
"Aryan race," 435
Ascension Day, 453
Ascorbic acid: In foods, 431
Ash Wednesday, 451, 453
Ashanti, 525
Asheville, N. C., 97
Ashmolean Museum, 684–85
Asia:
Area, 669
British Commonwealth, 537–45
Dimensions, 669
Elevations, 669
Emigration: to U. S., 95
Exploration, 667
French territories, 585–87
Map, 72–73
Major issues (1955), 18–19
Population, 92, 669
Religions, 437
Structures: famous, 687–88
Assassinations: Famous U. S., 340
Assaults: Number & arrests, 125
Assembly: Right of, 415
Assessed valuation: By city, 275–84
Assets:
Corporations, 724
Insurance companies, 714
Associations, 703–04
Sports, 762
Assyrian empire, 680
Astronomy, 476–500
Atmosphere, 499
Auroras: polar, 497
Comets, 496–97
Constants, 499
Eclipses (1956), 499
Measures, 428, 429
Meteors, 500
Moon, 498–99
Observatories, 500
Planetaria, 500
Planets, 498
Seasons, 497–98
Stars: brightest, 495
Stars: morning & evening, 492–94
Sun, 494–95
Symbols, 496
Telescopes, 500
Zodiac: signs, 496
Athens, Greece, 592
World War II, 144
Athletes: Of year, 784
Atkins Museum, 321
Atlanta, Ga.:
General information, 275–76
Fire (1946), 693
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 294
Population: growth, 97
Time of day, 491
Atlantic Charter, 144
Atlantic City, N. J., 97, 491
Atlantic Ocean:
Dimensions, 671
Flights over, 470–71
Passages: record, 697
U. S.: coastline, 137
U. S.: water area, 137
Atlas. *See* Maps
Atlas Mountains, 625
Atmosphere, 30–32, 499
Atomic bomb:
Clinton Engineer Works, 268
"Doomtown," 11
Explosions, 145, 146
Hanford Engineer Works, 270
Los Alamos laboratory, 263
Oak Ridge, 268
U.S.S.R., 147
Washington Conference (1945), 145
Weather factor, 37–38
Atomic cocktail: Defined, 151
Atomic energy:
Civilian control, 334, 337
Control: U. N., 146, 147, 742
Discoveries, 435
Einstein: theorem, 427
First atomic submarine, 9
Museum, 319
Pool launched, 148
Submarine, 147, 148
Atomic Energy Comm. (U. S.), 390, 392
Creation, 334
Oppenheimer decision, 148
Atoms. *See* Elements
Atonement, Day of, 452
Attendance. *See* Education
Attorneys General (U. S.), 393–96
Auburn, Maine, 258
Auckland Islands, 549
Augusta, Ga., 97, 255
Augusta, Maine, 258
Aureomycin: Discovery, 435
Aurora, Ill., 97
Auroras, polar, 497
Austerlitz, Battle of, 700
Austin, Nev., 491
Austin, Tex., 97, 268
Australia:
General information, 545–47
Agriculture: rating, 707, 708
Airlines: rating, 708
Birth rate, 111
Currency: par value, 734
Death rate, 111, 710
Dimensions, 669
Diplomats: U. S., 339
Employment: rating, 709
International Bank, 734
Life expectancy, 124
Mineral: rating, 706, 707
Museums, 685
SEATO, 150
Telephones: rating, 709
Trade, with U. S., 733
Treaty: U. S., N.Z., 402–03
United Nations, 743
Universities, 682
World War II, 347
Australian Desert, 673
Austria:
General information, 506–07
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
ECA: allotments, 734
German occupation, 506
Independence, 506
Industry: production, 730
Industry: rating, 708, 709
International Bank, 734
Life expectancy, 124
Map, 89
MSA: allotments, 734
Trade: rating, 709
Trade: with U. S., 732, 733
Treaty (1955), 16
World War I, 349
World War II, 348

Austrian Credit Anstalt, 141
Autogyro: First flights, 470
Automatic rifle: Invention, 434
Automobile industry:
Detroit, 260
Establishments, 722
Exports, 731
Hours worked, 717
Imports, 731
Repairs: shops, 720
Sales, 722
Wages, 717
Automobiles:
Accidents: deaths, 120
Auto racing, 844–45
Highest auto road, 253
Invention, 434
Laws: by state, 287
Registrations, 711
Thefts: arrests, 125
With radios, 299
Autumn (1956), 498
Avalanches: Alps, 692
Aviation:
Accidents: famous, 694–95
Air carriers: traffic, 723
Air mileages: between cities, 290–93
Airlines: pilots, 473
Airlines: scheduled, 473
Airplanes: production, 474, 475
Airplanes: types, 474, 475
CAB, 390, 392
Deaths, 120
Domestic traffic, 723
Firsts: famous, 469–71
Freight, 723
ICAO, 746
Inventions, 434
National Air Museum, 318
Passenger-miles flown, 708
Passengers, 473, 723
Records, 472–73
Avoirdupois weight, 426
Awards, 455–68
Academy, 465–66
N. Y. Critics', 466–68
Nobel prizes, 455–59
Pulitzer prizes, 460–64
"Axis":
Formed, 143
Member nations, 150
Azerbaijan, 602
Azores, 641

B

Babylon: Hanging gardens, 668
"Babylonian Captivity," 698
Babylonian empire, 680
Bacon's Rebellion, 698
Bacteria: Discovery, 435
Badlands, 267
Badminton, 796
Baffin: Area, 671
Baffin Bay, 667
Baghdad, Iraq, 603
Bahamas, 530
Area & population, 515
Map, 81
Bahrein Islands, 537
Area & population, 515
Baikal, Lake, 675
Bakelite: Invention, 434
Baker, Oreg., 491
Baker Island, 273
Bakersfield, Calif: Climate, 42
Balance of payments: U. S., 730
Bale (weight): Defined, 428
Balearic Islands, 649
Balfour Declaration, 698
Balkan Wars, 698
Balkhash, Lake, 675
Balloons:
Flights, 469
Helium: first use, 470
Invention, 434
Baltic Sea, 671
Baltimore, Md., 259
General information, 276
Continental Congress, 420
Fire (1904), 693
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
National Conventions, 355
Newspapers: leading, 294
Population: growth, 97
Time of day, 491
Walters Gallery, 321
Bamboo Curtain: Defined, 152
Bandung, Indonesia: Conference (1955), 11
Bangor, Maine, 258, 491
Banks (isl.), 671
Banks & Banking:
Bank holiday (1933), 142
Federal Deposit Insurance Corporation, 331
Federal Reserve System, 329
First bank, 702, 703
International Bank, 746
Land banks: loans, 329
Legislation, 329, 331, 332
NYC mergers, 9, 10
RFC, 331
State-owned bank, 265
U. S. Bank, 323, 324
See also Federal Reserve
Baptist Churches, 437–38
Barbados, 530
Area & Population, 515
Barber shops: Number, 720
Barents Island, 632
Barley:
Prices: farm, 725
Production: world, 707
Barometer: Invention, 434
Barre, Vt., 269
Barrel (meas.), 429
Baseball:
1955 champions & records, 853, 859, 864–69
All-Star games, 775, 865
All-time records, 774
Ball parks: dimensions, 775
Batting: records, 772, 866
Clubs: nicknames, 775
Clubs: number, 720
Commissioner, 763
Dixie Series, 865
Feller: pitching, 772
Final standings, 865
Game: longest, 776
Government, 763
Hall of Fame, 319, 773
History, 763
Home runs: records, 774
Junior champions, 865
Junior World Series, 776, 865
Major leagues, 763–75, 865–69
Measurements, 814
Minor leagues, 865
Most Valuable Players, 775
National Baseball Congress, 772
Pan-American Games, 859
Pennant winners: by year, 771
Pitching: records, 774, 867
Ruth: home runs, 773
World Series, 764–70, 867–69
Basic English, 152
Basketball:
1955 Champions & records, 848–49, 853, 856, 859
College, 805, 848
History, 805
Measurements, 814
Olympic Games, 791
Pan-American Games, 859
Professional, 805, 848–49
Bastille: Destroyed, 698
Basutoland, 522–23
Area & population, 515
Bataan, 144
Bath tubs: In homes, 714
Baton Rouge, La., 97, 258
Battlefield Parks, National, 316
Battlefield Sites, National, 316
Battleships: U. S., 347
Baudouin I, 507
Bauxite, 252, 706
Bay City, Mich., 97
Bayonne, N. J., 97
Bazooka: Defined, 152
Beaumont, Tex., 97
Beauty Parlors: Number, 720
Bebop: Defined, 152
Bechuanaland, 523
Area & population, 515
Bedloe's Island, 406
Beds: Hospital, 120
Beef: Prices, 725
Beer hall putsch, 141
Beet Sugar. *See* Sugar
Belgian Congo:
General information, 509
Agriculture: rating, 707, 708
Minerals: rating, 706, 707
Trade: with U. S., 733
Belgium:
General information, 507–10
Airlines: rating, 708
Birth rate, 111
Currency: Par value, 734
Death rate, 116
Diplomats: U. S., 339
ECA: allotments, 734
Industry: production, 730
Industry: rating, 709
International Bank, 734
Life expectancy, 124
Minerals: rating, 706, 707
MSA: allotments, 734
NATO, 150
Railways: rating, 709
Trade, 732, 733
United Nations, 743
Western European Union, 150
World War I, 347
World War II, 144, 145, 348
Belgrade, Yugoslavia, 665
Bellingham, Wash., 270
Belmont Futurity Stakes, 828, 857
Belmont Stakes, 829, 857
Benedictine Order, 698
Benefits:
Social Security, 738–41
Veterans, 349
Benes, Eduard, 563
Beria, Lavrenti P., 148
Bering Sea, 671
Bering Strait: Discovered, 667
Berkeley, Calif., 97
Berkshire Museum, 319
Berlin, Germany:
General information, 592
Airlift, 146
Congress of Berlin, 701
Longitude & latitude, 490
Museums, 684, 685
Population: world rank, 691
Russian blockade, 146
State Library, 683
Time of day, 490
World War II, 145
Berlin, N. H., 262

Bermudas, 531
Area & population, 515
Bernadotte, Count, 607
Berwyn, Ill., 97
Bessemer converter, 434
Betatron, 152
Bethlehem, Pa., 97
Bhutan, 510
Bible, 698
Characters, 192–95
Bicycles. *See* Cycling
Bifocal lens: Invention, 434
Big Bend National Park, 315
Bikini, 146
Bill of Rights, 415
Billiards, 816–17, 850
Parlors: number, 720
Billings, Mont., 261
Bills: Congressional, 329–38, 410
Bills (money): Portraits, 328
Biloxi, Miss., 260
Binaural sound, 152
Binet tests, 435
Binghamton, N. Y., 97
Biographies:
Presidents (U. S.), 368–80
Pulitzer prizes for, 463–64
Biological warfare, 152
Birds:
Incubation & longevity, 673
State, 251–71
Birmingham, Ala.: 251
General information, 276
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
National Convention, 355
Newspapers: leading, 294
Population: growth, 97
Time of day, 491
Birmingham, England, 514
Birth rates:
By age of mother, 112
By country, 111
By race, 112
By state, 109
By year, 112
Highest: by country, 709–10
Births:
By age of mother, 112
By order to mother, 110
By race, 112
By state, 109
By year, 110, 112
Famous persons, 218–39
Multiple, 111
Birthstones, 205
Bishops:
Methodist, 443
Protestant Episcopal, 442–43
Roman Catholic, 443–45
Bismarck (battleship), 144
Bismarck, N. Dak., 264–65, 491
Bismarck Archipelago, 547
Bituminous. *See* Coal
Black Death, 698
Black Friday, 698
Black Hills, 267
Black market: Defined, 152
Blacksmith shops: Number, 720
Blanc, Mt., 670
Blind flight: First, 471
Blind persons: Education, 129
Blitz: Defined, 152
Blockbuster: Defined, 152
Blood:
Circulation of: discovery, 435
Tests: for marriage, 105
"Blood, toil, tears, sweat," 144
Blue ribbon jury, 152
Board foot, 429
Bobsledding, 781, 849
Boer War, 698
Boiling point:
Chemical elements, 432–33
Water, 428
Boise, Idaho, 255, 491
Bolivia:
General information, 510–11
Currency: par value, 734
Diplomats: U. S., 339
Holiday: national, 690
Minerals: rating, 706, 707
Trade: with U. S., 732
United Nations, 743
Volcanoes, 677
Bolt (meas.), 429
Bombay, India, 541, 542
Bombers, 474, 475
Bonded debts: Cities, 275–84
Bonin Islands, 275
Volcano, 676
Bonuses:
Bonus marchers, 141
Legislation, 330, 332
Boogie-woogie: Defined, 152
Bookburning: Defined, 152
Books: Postal rate, 350
See also Literature; Publishing
Bop: Defined, 152
Borneo (isl.), 671
Borneo, Netherlands, 600
Borneo, North, 538
Area & population, 515
Bosporus, 656
Boston, Mass., 259
General information, 276
Boston Massacre, 698
Boston Tea Party, 698
Fires, 693, 694
Government, 286
Leyte explosion, 694
Longitude & latitude, 491
Magnetic declination, 491
Museums, 319, 320
Newspapers: leading, 294
Population: growth, 97
Time of day, 491
Bosworth Field, Battle of, 702
Botanic garden: First, 702
Bottleneck: Defined, 152
Bougainville, 550
Boulder, Colo., 253
Boulder Dam. *See* Hoover Dam
Boundaries: U. S., 134
Bourbon. *See* Réunion
Bouvet Island, 632
Bowling, 806–07, 849
Alleys: number, 720
Lawn bowling, 863
Boxer Rebellion, 698
Boxing:
1955 champions, 853, 858, 860
A.A.U., 860
Bare-knuckle champions, 793
Champions, world, 793–95
College, 860
Firsts: famous, 795
Gates: biggest, 792
Heavyweight Championship fights, 793
History, 792
Louis: ring record, 796
Measurements, 814
Neil Award, 795
Olympic Games, 791
Pan-American Games, 858
Weight limits, 796
Boy Scouts of America, 703
Brahmaputra, 674
Brainwashing: Defined, 153
Brazil:
General information, 511–14
Agriculture: rating, 707, 708
Airlines: rating, 708
Currency: Par value, 734
Diplomats: U. S., 339
Discovery, 668
Holiday: national, 690
Industry: rating, 709
Navy: rating, 710
Trade, 709, 732, 733
United Nations, 743
World War II, 348
Bremen (ship), 697
Brest-Litovsk, Treaty of, 140
Brethren, Church of, 440
Bricker Amendment, 337
Bridge (game):
Champions, 870
Contract bridge systems, 216–17
Bridgeport, Conn., 97, 253
Bridges:
Highest auto bridge, 268
Highest suspension bridge, 253
Notable bridges, 689
Bristol, Eng.: Museum, 685
British Cameroons. *See* Cameroons
British Columbia, 534
British Commonwealth, 514
See also individual nations
British Guiana. *See* Guiana
British Honduras. *See* Honduras
British Loan Act, 333
British Malaya. *See* Malaya
British Museum, 683, 684
British New Guinea. *See* Papua
Broadcasting. *See* Radio; Television
Broadway: Longest runs, 704
Brockton, Mass., 97
Brokers: Establishments, 722
Bronx:
Area & population, 99
Borough President, 280
See also New York, N. Y.
Bronx-Whitestone Bridge, 689
Brooklyn:
Area & population, 99
Borough President, 281
Brooklyn Museum, 317
See also New York, N. Y.
Brooklyn Bridge, 689
Brooklyn Eagle (news.), 10
Brown, John, 698
Brownout: Defined, 153
Brunei, 538
Area & population, 515
Brussels, Belgium, 507
Library, 683
Longitude & latitude, 490
Museums, 684
Population, 691
Time of day, 490
Bryan, William Jennings, 355, 357, 358, 395
Bryce Canyon National Park, 315
Buchanan, James:
Biography, 373
Cabinet, 394
Election, 357
Minority President, 419
Nomination, 355
Budapest, Hungary, 691
Museum, 685
Buddhists: Number, 437, 440
Budget. *See* Expenditure; Revenue
Budget, Bureau of, 389, 391
Budget dollar, 728
Buenos Aires, Argentina, 504
Conference (1936), 143
Buffalo, N. Y., 264
General information, 276
Government, 286
Longitude & latitude, 491

Buffalo, N. Y.—(cont.)
Magnetic declination, 491
Museums, 319
Newspaper: leading, 294
Population: growth, 97
Time of day, 491
Buhl Planetarium, 500
Building. *See* Construction
Buildings:
Famous, 686–88
Tallest, 696
Bulganin, Nikolai:
Becomes Premier, 16
Visit to Yugoslavia, 17
Bulgaria:
General information, 550–52
Birth rate, 111
Death rate, 116
World War I, 349
World War II, 334, 348, 551
Bulge, Battle of, 145
Bull Run, Battle of, 698
Bulldozer: Defined, 153
Bunker Hill, Battle of, 259, 698
Burbank, Calif., 97
Bureau of the Budget, 389, 391
Burgesses, House of, 702
Burglary, 125
Burlington, Vt., 269
Burma:
General information, 552–53
Agriculture: rating, 708
Currency: par value, 734
Diplomat: U. S., 339
Minerals: rating, 707
Trade, 709, 733
United Nations, 743
Burnett Immigration Bill, 329
Burns: Death rates, 118
Burr, Aaron, 356
Duel with Hamilton, 699
Bushel: Defined, 427
Business. *See* Economy
Busses:
Accidents: death rate, 120
Earnings & hours worked, 718
Passengers, 723
Butte, Mont., 261
Butter:
Consumption, 714
Production: world, 707
Rationing, 145
Butterfat: Prices, 725
Byelorussian S.S.R., 658
See also Union of S.S.R.
Byzantine architecture, 686

— C —

C.O.D. mail, 352
Cabinets:
Canada, 533
Confederacy, 396
Great Britain, 517
U. S. (1789–1955), 393–96
U. S.: 1st woman member, 703
U. S.: salaries, 382
Cable (meas.), 429
Cadre: Defined, 153
Caesar, Julius, 680
Cairo, Egypt, 568
Conference (1943), 145, 399
Calcutta, India, 691
Calendar:
Gregorian replaces Julian, 699
Perpetual, 493
World Calendar, 492
Year 1956, 478–89
Years 1955–57, 494
Calgary, Alberta, 532
Calhoun, John C., 393, 394
California:
General information, 252
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Gold rush, 699
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Mountain peaks, 134
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
California Academy of Sciences, 319
California Current, 33
California Palace of the Legion of Honor, 319
Calories: Of foods, 431
Calvin, John, 701
Cambodia, 586
Agriculture: rating, 708
Area & population, 577
Diplomats: U. S., 339
Cambridge, Mass., 97, 259
Camden, N. J., 97, 263
Camera: Invention, 434
Cameroons, British, 515
Volcano, 676
Cameroun, 580
Area & Population, 577
Camp Fire Girls, 703
Canada:
General information, 532–36
Agriculture: rating, 707, 708
Airlines: rating, 708
Birth rate, 111, 710
Currency: par value, 734
Death rate, 116, 710
Diplomats: U. S., 339
Emigration: to U. S., 95
Employment: rating, 709
Holiday: national, 690
Hurricane, 693
Industry: rating, 708
Lakes, 675
Libraries, 684
Life expectancy, 124
Map, 80
Minerals: rating, 706, 707
Motor vehicles: rating, 709
NATO, 150
Navy: rating, 710
Railways: rating, 709
Telephones: rating, 709
Time of day, 491
Time Zones, 476–77
Trade, 732, 733
United Nations, 743
Universities, 682
World War II, 348
Canadian River, 136
Canal Zone:
General information, 273
Education: U. S. funds, 128
Executions: method, 126
Map, 81
National Convention delegates, 354
Canals: Famous, 679
Canary Islands, 649
Volcano, 676
Cancer: Death rates, 117
Cancer, Tropic of, 497
Cane sugar. *See* Sugar
Canoeing, 862
Canterbury: Archbishops, 450
Canton, China, 555
Canton (isl.), 274
Canton, Ohio, 97
Capacity: Units, 426–27
Cape Bon, 145
Cape Colony, 523
Cape Horn: Discovered, 668
Cape of Good Hope, 667
Cape-to-Cairo Railroad, 698
Cape Verde Islands, 641–42
Volcano, 676
Capetown, So. Africa, 691
Capital Parks, National, 316
Capital punishment:
First state to abolish, 703
First state to use gas, 262
Methods: by state, 126
See also Executions
Capitals:
Highest capital, 511
State capitals, 251–71
Capitol (U. S.), 254
Caporetto, Battle of, 702
Capper-Volstead Act, 330
Capricorn, Tropic of, 497
Caracas, Venezuela, 663
Carat (meas.), 429
Carburetor: Invention, 434
Cardinals: College of, 445–47
Caribbean Sea, 671
Caribou, Maine, 42
Carlsbad, N. Mex., 263, 491
Carlsbad Caverns, 263, 315, 678
Carnegie Corporation, 703
Carnegie Endowment, 703
Carnegie Institute, 319
Carnival season, 451
Caroline Islands, 275
Carriers: Domestic traffic, 723
Carson City, Nev., 262
Carthage, 698
Cartoons:
First colored, 702
Pulitzer Prizes, 460–61
Casablanca Conference, 145
Case Bill, 333
Casper, Wyo., 271
Caspian Sea, 675
Casualties: War, 347–49
Catalogs: Postal rate, 351
Caterpillar Club: First member, 470
Cathedrals: European, 686–87
Catholic Churches, 438
See also Roman Catholic Church
Cattle:
Prices: farm, 725
Production: U. S., 726
Production: world, 707
Caucasoids, 436
Caves and Caverns, 678
Cedar Rapids, Iowa, 97, 257

Celebes, 600, 671
Cellophane: Invention, 434
Celluloid: Invention, 434
Cemeteries, National, 316
Census:
Established, 408
Population (1790–1950), 90
See also population
Centare, 425
Centigrade scale, 427
Central America: Map, 81
Central Powers (WWI), 150
Cerebral hemorrhage, 117
Cermak, Anton J., 340
Certified mail, 352
Ceylon:
General information, 538–39
Agriculture: rating, 708
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
International Bank, 734
Trade: with U. S., 732, 733
Chad, 581
Area & population, 577
Chain (meas.), 429
Chain reaction: Defined, 153
Chain stores: Sales, 724
Chalons, Battle of, 698
Chamberlain, Neville, 516
Chambers, Whittaker, 147
Champlain, Lake: Battle of, 702
Channel Islands, 522
Area & population, 515
Chapel Hill, N. C., 500
Chaplin, Charles: Barred from U. S., 147
Character assassination, 153
Charge accounts, 713
Charlemagne, 698
Charles I: Beheaded, 698
Charleston, S. C., 267
Area, 97
Longitude & latitude, 491
Magnetic declination, 491
National Convention, 355
Population, 97
Time of day, 491
Charleston, W. Va., 97, 270, 491
Charlotte, N. C.:
Area, 97
Longitude & latitude, 491
Magnetic declination, 491
Mint Museum, 320
Newspaper: leading, 294
Population, 97
Time of day, 491
Charter: U. N., 749–61
Chase National Bank: Merger, 9
Chattanooga, Tenn., 97, 268, 294
Cheese:
Consumption, 714
Production: world, 707
Rationing, 145
Cheesecake: Defined, 153
Chemical industry:
Establishments, 722
Exports, 731
Hours worked, 717
Prices, 723
Production, 715
Wages, 717
Chemistry:
Discoveries, 435
Elements, 432–33
Nobel Prizes, 456–59
Chesapeake Bay, 137
Chess, 799, 864
Chester, Pa., 97
Cheyenne, Wyo., 271, 491
Chiang Kai-shek, 555–56
Chicago, 256
General information, 276–77
Buildings: tallest, 696
Climate, 42
Fires, 693
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Museums, 317–18
National Conventions, 355
Newspapers: leading, 294
Planetarium, 500
Population: growth, 97
Population: world rank, 691
Time of day, 491
Zoos, 685
Chickens:
On farms, 726
Prices: farm, 725
Chief Justices:
List, 397
Salary, 382
Children:
Child labor, 329, 333
Of Presidents, 383
Offenses against, 125
U. N. Fund for Children, 745
Children's Crusade, 698
Chile:
General information, 553–55
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
Earthquake (1939), 692
Holiday: national, 690
Industry: rating, 709
Life expectancy, 124
Minerals: rating, 706
Trade, 732, 733
United Nations, 743
Volcanoes, 677
China:
General information, 555–59
Agriculture: rating, 707, 708
Aid: legislation, 334, 335
Armed forces: rating, 710
Birth rate, 709
Currency: par value, 734
Diplomats: U. S., 339
Exploration, 667
Floods, 692
Japan: invaded by, 143
Korean War, 147
Minerals: rating, 706, 707
Nine Power Treaty, 330
Structures, 687–88
Trade, 733
Typhoon, 693
United Nations, 743
U. S. flyers, 148
U. S. intervention, 382
U. S. prisoners released, 19
Wall of China, 687, 699
World War II, 348
Chinese (U. S.), 93
See also Nonwhite races
Chinese-Japanese War, 698
Chinese Turkestan. *See* Sinkiang
Chosen. *See* Korea
Christ. *See* Jesus
Christian Science, 440
Christianity:
Christians: number, 437
Roman Empire, 698
See also individual churches
Christmas, 453, 454
Christmas Island, 540, 550
Chrome: Imports, 731
Chromite: Production, 706
Chromosphere, 496
Chronology:
Historical & News events, 698–702
Years 1917–1954, 138–50
Year 1955, 9–15
See also History
Chrysler Bldg., 696
Chunking, China, 691
Fire (1949), 693
Longitude & latitude, 490
Population, 555
Time of day, 490
Church of England, 450
Churches:
Leading: U. S., 437–41
Number: by city, 275–84
See also Religion
Churchill, Winston, 516
"Blood, toil, tears, sweat," 144
Resigns (1955), 11
Terms as Prime Minister, 205
Cicero, Ill., 97
Cincinnati, Ohio, 265
General information, 277
Art Museum, 319
Building: tallest, 696
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
National Convention, 355
Newspapers: leading, 294
Population: growth, 97
Time of day, 491
Circle: Formulas, 427
Circular measure, 427
Circumference:
Formula for, 427
Of Earth, 498
Circus Museum, 321
Cities (U. S.):
General information, 275–84
Area, 97–100
Climate, 36, 42–44
Governments, 286
Largest: by state, 251–71
Longitude & latitude, 491
Magnetic declinations, 491
Mileages between, 288–91
Newspapers: leading, 294
Oldest city in U. S., 97
Population (1920–50), 97–100
Time of day, 491
Cities (world):
Largest, 691
Longitude & latitude, 490
Mileages between, 292–93
Population, 691
Time of day, 490
Citizenship (U. S.): Defined, 416
See also Naturalization
City Managers: Salaries, 286
Civil Aeronautics Board, 390, 392
Civil-defense bill, 335
Civil rights, 415
Civil Service Commission, 390, 392
Civil War, American, 324–25
Casualties, 347
Events, 698
Civil War, Spanish, 143
Civilian Conservation Corps, 331
Clarksburg, W. Va., 270
Classified: Defined, 153
Clay, Henry, 356, 357, 393, 468
Clay industry:
Hours worked, 717
Production, 715
Wages, 717
Clayton Antitrust Act, 329
Cleaning plants:
Earnings & hours worked, 718
Number, 720
Clerical workers: Number, 101

Cleveland, Grover:
Biography, 376
Cabinets, 395
Elections, 357
Family, 383
Hall of Fame, 468
Minority President, 419
Nominations, 355
Cleveland, Ohio, 265
General information, 277
Building: tallest, 696
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Museums, 319
National Convention, 355
Newspapers: leading, 294
Population: growth, 97
Time of day, 491
Cleveland Heights, Ohio, 97
Clifton, N. J., 97
Climate:
Cities: U. S., 36, 42–44
World: extremes, 679–80
See also Weather
Clinton Engineer Works, 268
Cloak-and-Dagger: Defined, 154
Clocks:
Imports, 731
Pendulum clock: invention, 434
Cloisters (museum), 317
Closed circuit: Defined, 154
Clothing industry:
Consumer spending, 712
Establishments, 722
Hours worked, 717
Price index, 712, 723
Production index, 715
Sales, 722
Wages, 717
Cloud chamber: Defined, 154
Clovis, N. Mex., 263
Coal industry:
Coal products: manufacture, 715
Exports, 731
Hours worked, 717, 718
Leading state, 270
Production: U. S., 706
Production: world, 706
Wages, 717, 718
Coast Guard (U. S.):
Academy, 342
Allowances, 344
Education: government funds, 128
History, 343
Insignia, 344
Officers, 344, 392
Pay, 344
Personnel: by year, 348
Ranks, 344
Coastline: U. S.: by state, 137
Coaxial cable: Defined, 154
Cochin-China, 585–86
Cocoa:
Consumption, 714
Imports, 731
Code, Justinian, 700
Code Napoleon, 698
Code of Hammurabi, 698
Coeducation: First, 702
Coffee:
Consumption, 714
Imports, 731
Coke: Production, 715
Cold front: Defined, 39
Cold War, 150
Defined, 154
Collect-on-delivery mail, 352
Collective security: Defined, 154
College of Cardinals, 445–47
Colleges:
Accredited, 300–14
Ancient & modern, 681–83
Degrees: academic, 131, 133
Enrollment, 132
Graduates, 130
Libraries, 684
Presidents, 300–14
United States, 300–14, 683
Cologne, Germany, 589
World War II, 145
Colombia:
General information, 559–60
Currency: par value, 734
Diplomats: U. S., 339
Holiday: National, 690
Minerals: rating, 706
Trade, 732, 733
United Nations, 743
Volcanoes, 677
Colorado:
General information, 252–53
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Mountain peaks, 134
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Colorado River, 136
Colorado Springs, Colo., 253, 319
Colosseum, 686
Colossus: Rhodes, 668
Columbia, S. C., 97, 267, 491
Columbia Broadcasting System, 297
Columbia River, 136
Columbus, Christopher, 667
Columbus, Ga., 97, 255
Columbus, Ohio, 265
General information, 277
Building: tallest, 696
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 294
Population: growth, 97
Time of day, 491
Columbus Day, 452, 454
Combustion: Nature of, 435
Comets, 496–97
Cominform. *See* Communist Information Bureau
Comintern. *See* Third International
Commando: Defined, 154
Commerce. *See* Economy
Commerce, U. S. Dept. of, 390, 392
Education: funds, 128
Secretaries, 395–96
Commerce & Labor, U. S., Dept. of, 395
Commissions: City, 286
Committees:
Congressional, 385
National: chairmen, 383
Commonwealth Fund, 703
Commonwealth of Nations, 514–50
See also individual nations
Communications:
Countries: leading, 708, 709
Establishments, 715
FCC, 142, 390, 392
ITU, 747
Communism:
Countries, 150
Countries: maps, 68–73
See also Union of S.S.R.
Communist Information Bureau, 146
Communist International, 700
Communist Manifesto, 698
Communist party (U. S.):
Election statistics, 361, 362
11 leaders guilty, 147
Internal Security Act of 1950, 335
Outlawed, 148, 337
Como, Lake, 611
Comoro Islands, 577
Volcano, 676
Companies: Billion dollar, 724
Compromise of 1850, 698–99
Comstock Lode, 262
Concert music. *See* Music
Concord, N. H., 262
Conditioned reflex, 435
Cone: Volume, 427
Confederate Memorial Day, 454
Confederate States of America:
Cabinet, 396
Capital, 396
Capital, temporary, 251
Flag, 422
President & Vice Presidents, 396
Proclaimed, 699
See also Civil War; Secession
Conferences: WW II, 399–402
Confucianists: Number, 437
Congo. *See* Belgian Congo; Middle Congo
Congo (river), 674
Congregational Churches, 440
Congregational organizations, Jewish, 451
Congress (U. S.):
Assembling time, 409, 417
Bills & treaties since 1900, 329–38
Committees, 385
84th: members, 384–88
First meeting, 420
Library of Congress, 684
Party standings, 384
Powers, 408, 409–10
Salaries, 382
Shooting in House, 148
See also House; Senate
Congress of Berlin, 701
Congress of Industrial Organizations:
Formed, 142
Leading unions, 721
Merger planned with AFL, 10

Congress of Vienna, 699
Congresses, Continental, 420
Connecticut:
  General information, 253
  Accidental death rates, 118
  Agriculture: statistics, 726, 727
  Altitudes, 135
  Area: land, 96
  Births: number, 109
  Congress: members, 384, 386
  Constitution: ratified, 407
  Death rates, 118
  Deaths: infants, 115
  Deaths: motor-vehicle, 119
  Deaths: number, 115
  Divorces: statistics, 106, 107
  Economy: statistics, 726, 727
  Education: statistics, 127, 130
  Elections: statistics, 359–66
  Executions: method, 126
  Families: number, 113
  Government, 285
  Highest, lowest points, 135
  Holidays, 454
  Hospitals: number, 120
  Map, 83
  Marriages: statistics, 105
  Motor vehicles: deaths caused by, 119
  Motor vehicles: laws, 287
  Newspapers: number, 296
  Population: density, 96
  Population: growth, 96
  Population: marital status, 104
  Shore line, 137
  Time zone, 86
  Unemployment: compensation, 741
  Voting: qualifications, 367
Connecticut River, 136
Conspiracy: Penalty, 337
Constantinople: Founded, 699
  See also Istanbul
Constitution (U. S.):
  Amendment procedure, 414
  Dates ratified, 407
  History, 323
  Text, 407–18
Constitutional Union party, 357
Constitutions (state):
  Dates adopted, 251–71
  First state to have, 253
Construction industry:
  Activity: by type & year, 716
  Employment, 719
  Establishments, 715, 722
  Expenditure, 710
  Hours worked, 718
  Houses built, 713
  Materials: sales, 722
  Wages, 718
Consumers:
  Credit, 713
  Prices, 712
  Spending, 713
Contact lens: Defined, 154
Continental Congresses, 420
Continental Flag, 422
Continents. *See* individual continents
Contour Farming: Defined, 154
Contract bridge:
  Champions, 870
  Systems, 216–17
Conventions: National, 354, 355
Converter: Bessemer, 434
Coolidge, Calvin:
  Biography, 378
  Cabinet, 396
  Election, 358
  Family, 383
  Nomination, 355
Cooperstown, N. Y., 319, 320, 321
Copenhagen, Denmark, 564–66
Copernican theory, 435
Copper industry:
  Imports, 731
  Production: U. S., 717
  Production: world, 706
Copyrights: Procedure, 299
Coral Sea, Battle of, 144
Corcoran Gallery, 318
Corfu, 141
Corn:
  Exports, 731
  Prices: farm, 725
  Production: U. S., 726
  Products: consumption, 714
Corn Islands, 100
Corning Glass Center, 319
Coronary thrombosis, 154
Corporations, 724
Corpus Christi (holiday), 453
Corpus Christi, Tex., 97
Corregidor, 144
Corrigan, Douglas: Flight, 143
Corsica, 579
Corvallis, Oreg., 266
Costa Rica:
  General information, 560–61
  Birth rate, 111
  Currency: par value, 734
  Death rate, 116
  Diplomats: U. S., 339
  Holiday: national, 690
  Trade: with U. S., 732, 733
  United Nations, 743
  Volcanoes, 677
Cotton Bowl (football), 798
Cotton gin: Invention, 434
Cotton industry:
  Exports, 731
  Income: marketing, 725
  Plantation: largest, 260
  Prices: farm, 725
  Production: U. S., 726
  Production: world, 707
Council of Economic Advisers, 389, 391
Council of Nicaea, 699
Council of Trent, 699
Councils, City, 286
Counter Reformation, 699
Counter-intelligence: Defined, 154
Counterfeiting:
  Arrests, 125
  Prisoners: Federal, 126
Counties: Number by state, 251–71
Countries:
  Area & population, 690
  Political changes, 149
  Riches and resources, 706–10
  See also individual countries
Court martial: Cases, 126
Court of Justice, International, 747
Court tennis, 803, 863
Courtesy cards: Defined, 154
Courts:
  Federal, 413
  Federal: convictions, 126
  States: highest, 285
  See also Supreme Court
Coventry, England, 144
Covington, Ky., 97, 257
Cowpens, Battle of, 698
Cows: On farms, 726
"Coxey's Army," 699
"Cradle of Liberty," 259
Craftsmen: Number, 101
Cranston, R. I., 267
Crater Lake National Park, 315
Craters: Meteor, 500
Cream: Consumption, 714
Crécy, Battle of, 700
Credit: Consumer, 335, 713
Creed, American's, 424
Crete, 594
Cricket (game), 845
Crime:
  Arrests: number, 125
  Executions: methods, 126
  Major crimes, 125
  Prisoners: Federal, 126
Crimean War, 699
Crops. *See* Farming
Crossword puzzle guide, 181–207
Crucifixion of Christ, 699
Crusades, 699
  Children's Crusade, 698
Cuba:
  General information, 561–62
  Agriculture: rating, 708
  Currency: par value, 734
  Diplomats: U. S., 339
  Holiday: national, 690
  Minerals: rating, 706, 707
  Trade, 732, 733
  United Nations, 743
Cube: Volume, 427
Cubes and Cube roots, 430
Cubit, 429
Cumberland, Md., 259
Curaçao, 628
Curie, Marie, 456
Curling (sport), 854
Currency. *See* Money
Currier Gallery, 319
Curtis, Charles, 381
Curtis Cup, 781
Custer massacre, 699
Customs: Receipts, 729
Cutback: Defined, 154
Cyanide: Invention, 434
Cybernetics: Defined, 155
Cycling, 815, 858, 864
Cyclones, 26
Cyclotron, 155, 434
Cylinder: Volume, 427
Cyprus, 539–40
  Area & population, 515
Czars: Russia, 207
Czechoslovakia:
  General information, 562–64
  Agriculture: rating, 708
  Birth rate, 111
  Death rate, 116
  Diplomats: U. S., 339
  Industry: rating, 709
  Life expectancy, 124
  Minerals: rating, 706, 707
  Trade: with U. S., 733
  United Nations, 743
  World War II, 145, 348

— D —

D-Day, 145
Dachau concentration camp, 145
Daguerreotype process, 434
Dahomey, 577
Dairy products:
  Exports, 731
  Income: marketing, 725
Dakar, 581
Dallas, Tex.:
  General information, 277
  Area, 97
  Climate, 43
  Government, 286
  Longitude & latitude, 491
  Magnetic declination, 491
  Newspapers: leading, 294
  Population: growth, 97
  Time of day, 491

Dalton, John: Theory, 435
Dams: World, 688
Dance halls: Number, 720
Dante: Divine Comedy, 699
Danube, 674
Danzig, 143
Dardanelles, 656
Dare, Virginia, 702
Date-line, 477
Davenport, Iowa, 97, 257, 320
Davis, Jefferson, 393, 395
Davis Cup, 782
Dawes, Charles G., 381
Dawes Plan, 141
Daylight saving time, 476
Days: Sidereal & solar, 499
Dayton, Ohio, 97, 277
Dead Sea: Elevation, 608
Deaf persons: Education, 129
Dearborn, Mich., 97, 260
Death rates:
- Accidental: transportation, 120
- By age, 116, 121–22
- By cause, 117, 118
- By country, 116
- By marital status, 117
- By race, 116, 121–22
- By sex, 116, 121–22
- By state, 115, 118
- By type, 118
- By year, 114
- Lowest: by country, 710
- Motor-vehicle: by state, 119

Death Valley: Elevation, 134
Deaths:
- Accidental: frequency, 113
- Assassinations, 340
- By state, 115
- By year, 114
- Casualties: war, 347–49
- Motor-vehicle: by state, 119
- Motor-vehicle: by year & type, 119

Debs, Eugene V., 357, 358, 701
Debts:
- Bonded: by city, 275–84
- Public, 417, 728

Decamisado: Defined, 155
Decatur, Ill., 97
Decimals: Fraction equivalents, 430
Declaration of Independence, 404–06
Declaration of war. *See* World War II under individual countries
Decoration Day, 452, 454
Defense, U. S. Dept. of, 389, 391
- Armed services, 341–49
- Education: funds, 128
- Expenditures, 729
- Legislation, 334–38
- Radar warning lines, 80
- Secretaries, 396

Defense Mobilization, Office of, 389, 392
Deficit spending: Defined, 155
Degree day: Defined, 155
Degrees: Academic, 131, 133
Delaware:
- General information, 253–54
- Accidental death rates, 118
- Agriculture: statistics, 726, 727
- Altitudes, 135
- Area: land, 96
- Births: number, 109
- Congress: members, 384, 386
- Constitution: ratified, 407
- Death rates, 118
- Deaths: infants, 115
- Deaths: motor-vehicle, 119
- Deaths: number, 115
- Divorces: statistics, 106, 107
- Economy: statistics, 726, 727
- Education: Negroes, 131
- Education: statistics, 127, 130
- Elections: statistics, 359–66
- Executions: method, 126
- Families: number, 113
- Government, 285
- Highest, lowest points, 135
- Holidays, 454
- Hospitals: number, 120
- Map, 83
- Marriages: statistics, 105
- Motor vehicles: deaths caused by, 119
- Motor vehicles: laws, 287
- Newspapers: number, 296
- Population: density, 96
- Population: growth, 96
- Population: marital status, 104
- Shore line, 137
- Time zone, 86
- Unemployment: compensation, 741
- Voting: qualifications, 367

Delaware Bay, 137
Delegates: National Conventions, 354
Delinquents: Education, 129
Delta wing plane, 155
Democratic party:
- Congress, 384–88
- Elections: Presidential, 356–66
- National Committee, 383
- National Conventions, 354, 355
- State voting the longest for, 269

Democratic Republican party, 356
De Molay, 704
Denmark:
- General information, 564–67
- Agriculture: rating, 707, 708
- Birth rate, 111
- Currency: par value, 734
- Death rate, 116
- Diplomats: U. S., 339
- ECA: allotments, 734
- Industry: production, 730
- International Bank, 734
- Life expectancy, 124
- MSA: allotments, 734
- NATO, 150
- Telephones: rating, 709
- Trade: rating, 709
- Trade: with U. S., 732, 733
- United Nations, 743
- World War II, 144, 348

Density:
- Chemical elements, 432–33
- Population. *See* Population

Denver, Colo.:
- General information, 252–53
- Climate, 43
- Government, 286
- Longitude & latitude, 491
- Magnetic declination, 491
- Museums, 320
- National Convention, 355
- Newspapers: leading, 294
- Population: growth, 97
- Time of day, 491

Department stores, 722, 724
Deposits. *See* Banks
Depths:
- Lakes, 675
- Oceans & seas, 671

Des Moines, Iowa, 256–57
- Longitude & latitude, 491
- Magnetic declination, 491
- Newspapers: leading, 294
- Population: growth, 97
- Time of day, 491

Desegregation: Supreme Court, 12
Deserts: Principal, 673
Destroyers: Traded to Britain, 144
Detective agencies: Number, 720
Detergent: Defined, 155
Detroit, Mich.:
- General information, 260, 278
- Building: tallest, 696
- Government, 286
- Longitude & latitude, 491
- Magnetic declination, 491
- Museums, 320
- Newspapers: leading, 294
- Population: growth, 97
- Time of day, 491

Deuterium: Discovery, 435
de Valera, Eamon, 605
Devil's Island, 584
Devon: Area, 671
Dew line, 80
Dewey, Thomas E.:
- Candidate for President, 363, 364
- Nominations for President, 355

Diabetes mellitus: Death rates, 117
Diamonds: N. A. mine, 252
Diarrhea: Death rates, 117
Dienbienphu, Indo-China, 148
Diesel engine: Invention, 434
Dim out: Defined, 155
Dingley Tariff, 325
Dioceses: Roman Catholic, 443–45
Diode: Invention, 434
Dionne quintuplets, 142
- Emilie dies, 148

Diplomats: To & from U. S., 339–40
Diptheria:
- Antitoxin, 435
- Death Rates, 117
- Schick test, 435

Directory (France), 699
Dirigible: First, 469
Disasters, 692–96
Disc jockey: Defined, 155
Discophile: Defined, 155
Discoveries:
- Chemical elements, 432–33
- Historical, 667–68
- Scientific, 435

Disorderly conduct: Arrests, 125
Displaced persons: Legislation, 334
Distances:
- Between cities, 288–93
- Northern hemisphere, 66–67

District of Columbia:
- General information, 254
- Accidental death rates, 118
- Altitudes, 135
- Area: land, 96
- Births: number, 109
- Bonus army, 141
- Congress: legislation, 411
- Death rates, 118
- Deaths: infants, 115
- Deaths: motor-vehicle, 119
- Deaths: number, 115
- Divorces: statistics, 106, 107
- Economy: statistics, 726, 727
- Education: Negroes, 131
- Education: statistics, 127, 130
- Education: U. S. funds, 128
- Executions: method, 126
- Holidays, 454

Hospitals: number, 120
Legislation, 411
Lincoln Memorial, 687
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Museums, 318
National Convention delegates, 354
Newspapers: leading, 295
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
White House, 398
Zoo, 685
Divine Comedy of Dante, 699
Divorces:
"Divorce capital," 262
Divorced persons: deaths, 117
Divorced persons: number, 104
Laws: by state, 106, 107
Number: by state, 106
Number & rates: by year, 103
Dixon-Yates contract: Canceled, 13
Dnieper, 675
Dodecanese, 594, 611
Dogs: Shows, 813, 870
Dollar: Gold value cut (1934), 142
Dollfuss, Englebert, 506
Domestic Allotment Act, 332
Dominican Order: Founded, 699
Dominican Republic:
General information, 567
Currency: par value, 734
Diplomats: U. S., 339
Holiday: national, 690
Trade: with U. S., 732, 733
United Nations, 743
U. S. intervention, 382
Don (river), 675
Doodle: Defined, 155
Dorr Rebellion, 699
Douay Version of Bible, 698
Double talk: Defined, 155
Double-think: Defined, 155
Douglas, Ariz., 251
Dover, Del., 253
Draft. *See* Selective Service
Drama. *See* Theater
Dred Scott case, 699
Dresden, Germany, 591
Dreyfus case, 699
Driving:
Licenses, 287
Mileages between cities, 288–93
Speed limits, 287
Drowning: Death rates, 118
Drug stores:
Leading, 724
Number, 722
Sales, 722
Drugs:
Arrests, 125
Laws: Federal prisoners, 126
Pure Food & Drug Act, 329
See also Narcotics
Drunkenness: Arrests, 125
Dry goods:
Sales, 722
Stores: leading, 724
Wholesale, 722
Dublin, Ireland, 604
Museum, 685
Dubuque, Iowa, 491
Duck pins, 808
Dulles, John Foster, 396
Duluth, Minn., 43, 97, 260
Du Mont Television Network, 297
Dunkerque evacuation, 491
Dunkers, 440
Durham, N. C., 97
Dutch East Indies. *See* Indonesia
Dutch Guiana. *See* Surinam
Dynamite: Invention, 434
Dynamo: Invention, 434

E

Earth (planet), 496, 498, 499
Earthquakes: Famous, 692
East Africa High Commission, 523–24
East Chicago, Ind., 97
East China Sea, 671
East Germany. *See* German Democratic Republic
East North Central States:
Economy: statistics, 727
Population: marital status, 104
East Orange, N. J., 97
East St. Louis, Ill., 97, 256
East South Central States:
Economy: statistics, 727
Population: marital status, 104
Easter Island, 555
Easter Rebellion, 699
Easter Sunday, 451, 453
Eastern Orthodox Churches, 437, 438
Eastport, Maine, 491
Eating places. *See* Restaurants
Eclipses (1956), 499
Economic Advisers, Council of, 389, 391
Economic and Social Council. *See* United Nations
Economic Cooperation Administration:
Allotments, 734
See also Foreign aid
Economy:
Progress (1955), 20–21
Statistics, 705–34
Ecuador:
General information, 567–68
Currency: par value, 734
Diplomats: U. S., 339
Earthquake (1949), 692
Holiday: national, 690
Trade: with U. S., 732, 733
United Nations, 743
Volcanoes, 677
Eden, Anthony, 11
Edict of Nantes, 699
Edinburgh, Scotland, 514
Edmonton, Alberta, 532, 534
Education, 127–133
Colleges, accredited, 300–14
Colleges: statistics, 129
Construction, 716
Consumer spending, 712
Degrees: academic, 133
Employment, 719
Federal aid, 128
Negroes, 131
Private schools, 129, 132
Public schools, 128, 129, 132
School attendance laws, 130
States: statistics, 127
Technical, 129
UNESCO, 747
Veterans, 128, 349
Vocational schools, 129
Edward VIII (England), 142, 143, 516
Egghead: Defined, 155
Eggs:
Consumption, 714
Exports, 731
Income: marketing, 725
Prices, 725
Egypt:
General information, 568–71
Agriculture: rating, 707
Ancient empire, 680
Currency: par value, 734
Diplomats: U. S., 339
Life expectancy, 124
Minerals: rating, 707
Pyramids, 668
Soviet arms, 21
Structures, 686
Trade, 733
United Nations, 743
Egyptian mythology, 204
Eiffel Tower, 687
Eighteenth Amendment, 417
Einstein, Albert:
Arrives in U. S., 142
Death, 11
Nobel prize, 457
Relativity, 435
Theorem, 427
Eire. *See* Ireland
Eisenhower, Dwight D.:
Biography, 380
Atomic energy pool, 148
Cabinet, 396
Coronary thrombosis, 15–16
Election, 365
Family, 383
Nomination, 355
Supreme Commander of NATO Forces, 147
Elba: Napoleon exiled to, 700
Elbe: Americans & Russians meet, 145
Elbert, Mt., 134
El Centro, Calif., 491
Elder statesman: Defined, 155
Elections:
Election Day, 452, 453, 454
Presidential (1789–1952), 355–66
Presidential: procedure, 354, 416
See also Voting
Electoral College:
Appointment & qualifications, 411
Procedure, 354, 415
Vote (1789–1952), 356–66
Electoral Commission, 358
Electric railways: Traffic, 723
Electrical industry:
Customers, 727
Electricity in homes, 714
Establishments, 722
Exports, 731
Hours worked, 718
Machinery, 717
Price index, 712
Production: U. S., 714
Production: world, 708, 709
Wages, 718
Electricity:
Cost of operation, 427
Inventions & discoveries, 434–35
Electrocution:
First, 702
States using, 126
Electromagnet: Invention, 434
Electromagnetic waves, 435
Electron: Discovery, 435
Electron microscope, 434

Electroplating process, 434
Elementary schools. *See* Schools
Elements: Chemical, 432–33
Elevations. *See* Altitudes
Elevator: Invention, 434
Eleventh Amendment, 415
Elizabeth II (England), 516
  Becomes Queen, 147
  Crowned, 148
  Marriage, 146
Elizabeth, N. J., 98
Elkins Act, 329
Elks (assn.), 703
Ell (meas.), 429
Ellesmere (Canada), 671
Ellice Islands. *See* Gilbert
El Paso, Tex.:
  Area, 98
  Longitude & latitude, 491
  Magnetic declination, 491
  Population, 98
  Time of day, 491
El Salvador:
  General information, 645–46
  Birth rate, 111
  Currency: par value, 734
  Death rate, 116
  Diplomats: U. S., 339
  Holiday: national, 690
  Trade: with U. S., 732, 733
  United Nations, 743
  Volcanoes, 677
Elsmere, Del., 253
Emancipation Proclamation, 698
Embezzlement:
  Arrests, 125
  Prisoners: Federal, 126
Emergency Quota Act, 330
Emigration: From U. S., 95
  See also Immigration
Empires: Ancient, 680
Employment:
  Agencies: number, 720
  Agricultural: by state, 727
  By industry & year, 719
  Countries: leading, 709
  Manufacturing: by state, 727
  State employees, 719
Enderbury, 274
Energy: Conversion from matter, 427
  See also Atomic energy
England:
  Area, 516
  Church of England, 450
  Life expectancy, 124
  Population, 516
  Rulers, 204–05
  See also Great Britain
Enid, Okla., 265
Eniwetok, 275
Entertainment. *See* Amusement
Ephesus: Temple, 668
Epileptic persons: Education, 129
Epiphany, 451
Epsom Derby, 829–30
Equinoxes, 497
"Era of Good Feeling," 370
Erie, Lake, 675
  Battle of, 702
  U. S.: area, 137
Erie, Pa., 98, 266
Erie Canal, 264
Eritrea, 573
Eruptions. *See* Volcanoes
Escalator clause: Defined, 156
Espionage: Penalty, 337
Establishments: Business, 715, 720, 722
Estonia:
  General information, 571–72
  Diplomats: U. S., 339
  See also Union of S.S.R.
Ether: First use, 435
Ethiopia:
  General information, 572–73
  Agriculture: rating, 707
  Currency: par value, 734
  Diplomats: U. S., 339
  International Bank, 734
  Italian invasion, 142, 143
  Trade: rating, 709
  Trade: with U. S., 733
  United Nations, 743
Etna, Mt., 676
Eugene, Oreg., 266, 491
Euphrates, 674
Eurasia: Map, 72–73
Europa (ship), 697
Europe:
  Area, 669
  Dimensions, 669
  Elevations, 669
  Emigration: to U. S., 95
  Exploration, 677
  Industrial production, 730
  Map, 70–71
  Political changes, 149
  Population, 92, 669
  Religions, 437
  Structures: famous, 686–87
European Coal-Steel Community, 147
European Defense Community Treaty, 147, 148
European Recovery Program, 334
Euthanasia: Defined, 158
Evangelical churches,
Evans, Mt., 134
Evanston, Ill., 98
Evansville, Ind., 98, 256, 294
Evening schools, 129
Evening stars (1956), 492–94
Events. *See* Chronology
Everest, Mt., 670
  Climbed, 148
Everglades National Park, 255
Evolution, 435
  Scopes trial, 701
Excess-profits taxes, 337
Excise taxes, 335, 337, 338
Execution:
  First, 702
  Methods, 126
Executive Depts. (U. S.), 389–90, 391–92
  Secretaries: salaries, 382
Expansion of U. S., 100
Expectation of life, 120–24
Expenditures:
  Advertising, 720
  By cities, 275–84
  By year, 710
  Consumer, 712, 713
  Educational, 127, 128, 131
  Government, 713
  Gross national product, 710
  States, 251–71
Explorations, 667–68
Explosions: Famous, 693–94
Exports:
  By country: 732–33
  Countries: leading, 709
  U. S.: by commodity, 731
  U. S.: by year, 732–33
Extradition: Between states, 413–14

F

FM. *See* Frequency modulation
Faeroe Islands, 566
Fahrenheit scale, 428
Failures: Business, 715
Fair Trade Acts of 1952, 336
Fairbanks, Alaska, 271
Fair-trade agreement, 156
Falkland Islands, 536
  Area & population, 515
Fall (1956), 498
Fall River, Mass., 98, 259
Falling bodies:
  Law: discovery, 435
  Speed & distance, 427
Falls: Death rates, 118
Families:
  Family names, 59–65
  Incomes, 711
  Number, 112, 113
  Persons per family, 113
  With telephones, 727
Famous persons:
  Who Was Who, 240–50
  Who's Who, 218–39
Far East:
  Map, 74–75
  Major issues (1955), 18–19
Fargo, N. Dak., 265
Farmer-Labor party, 358
Farmers' Museum, 320
Farms and Farming:
  AAA, 331
  Animals: domestic, 726
  Construction, 716
  Contour farming, 154
  Co-operatives, 330, 331
  Farmers: number, 101
  Federal farm board, 331
  Income, 725
  Legislation, 329, 337
  Loans: government, 329, 330, 331
  Mortgages, 331, 332
  Number, 725
  Population, 725
  Prices: index, 723
  Prices: parity, 725
  Products: establishments, 722
  Property, 725
  Soil conservation, 332
  Tenant farmers, 725
  Working population, 101
Fates (myth.), 198
Father's Day, 454
Fathom (meas.), 429
Fats:
  Consumption, 714
  Exports, 731
Fawkes, Guy, 699
Feasts: Jewish, 451–53
Feather merchant: Defined, 156
Featherbed rule, 156
Federal Communications Commission, 142, 390, 392
Federal courts:
  Convictions, 126
  Jurisdiction, 413
Federal Deposit Insurance Corporation, 331
Federal Farm Bankruptcy Act, 332
Federal Farm Loan Act, 329
Federal Housing Administration, 332
Federal Reserve Board, 332
Federal Reserve System, 390, 392
  Act: violators, 126
  Legislation, 329, 331, 332
Federal Securities Act, 331
Federal Trade Commission, 329, 390, 392
Federal Water Power Act, 330
Federalist party, 356
Feedback: Defined, 156
Fellow traveler: Defined, 156
Fels Planetarium, 500
Females. *See* Women

Fencing, 809, 853, 854, 858
Fenimore House, 320
Feudalism, 699
Field Foundation, 703
Field Museum, 318
Fifteenth Amendment, 417
Fifth column: Defined, 156
Fighters (planes), 475
Figure skating, 810
Fiji, 515, 547–48
Filament: Tungsten, 434
Filling stations, 722
Fillmore, Millard:
Biography, 373
Cabinet, 394
Family, 383
Films: *See* motion pictures
Finance:
Employment, 719
Establishments, 715
Fingal's Cave, 678
Finland:
General information, 573–75
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
International Bank, 734
Life expectancy, 124
Trade, 732, 733
Trade: rating, 709
World War II, 144, 348
Fireballs, 500
Firemen: Number, 719
Fires: Famous, 693–94
"Fireside Chat": First, 142
Firms: Number, 715, 720, 722
First Fruits, Feast of, 452
First International, 700
Firsts:
Aviation, 469–71
Boxing, 795
In America, 702–03
Fishing: Records, 839
Fission: Defined, 156
Five and Ten Cents Store, 702
Five percenter: Defined, 156
Five-Year Plan, 141, 660
Flag:
Confederate, 422
U. S.: etiquette, 422–24
U. S.: Flag Day, 452
U. S.: history, 422
U. S.: Pledge to, 424
Flagstaff, Ariz., 491
Flaxseed: Prices, 725
Flights, 29–30, 469–71
Flint, Mich., 79, 260
Sit-down strike, 143
Floods: Famous, 692
Florence, Italy:
Library, 683
Museums, 684
Florida:
General information, 254–55
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Hurricanes, 693
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Flour:
Consumption, 714
Exports, 731
See also Wheat
Flowers: State, 251–71
Fluid drive: Defined, 156
Fly and bait casting, 861
Flying Enterprise (ship), 694
Flying shuttle: Invention, 434
Folk art museum, 320
Food and food industry:
Calories, 431
Consumer spending, 712
Consumption, 714
Establishments, 722
Exports, 731
FAO, 746
Grocery stores: leading, 724
Hermetic sealing, 434
Hours worked, 717
Imports, 731
Income: marketing, 725
Prices: index, 712, 723
Production: U. S., 715
Production: world, 707–08
Pure Food and Drug Act, 329
Sales, 722
Vitamins, 431
Wages, 717
Worktime needed to buy, 713
Football, 797–99
Bowl games, 797–98
Clubs: number, 720
Famous series: records, 798
History, 797
Measurements, 814
Professional, 799
Ford Foundation, 703
Fordney-McCumber Tariff, 330
Foreign aid:
Legislation, 334–38
United States, 730
See also Marshall Plan
Foreign-born: In U. S., 94
Foreign phrases, 195
Foreign trade: U. S., 731–33
Forestry:
Countries: leading, 707
Resources: U. S., 135
State forests, 251–71
Forgery:
Arrests, 125
Prisoners: federal, 126
Formosa, 18–19, 558
Life expectancy, 124
Map, 74
Forms of address, 178–80
Formulas: Common, 427
Fort Smith, Ark., 252
Fort Wayne, Ind., 98
Fort Worth, Tex.:
General information, 278
Government, 286
Newspaper: leading, 294
Population: growth, 98
Foundations, 703–04
Fountain pen: Invention, 434
Fourteen Points, 140
Fourteenth Amendment, 416–17
Fractions: Decimal equivalents, 430
France:
General information, 575–87
Agriculture: rating, 707, 708
Airlines: rating, 708
Armed forces: rating, 710
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
ECA: allotments, 734
Industry: production, 730
Industry: rating, 708, 709
International Bank, 734
Labor: purchasing power, 713
League of Nations, 743
Life expectancy, 124
MSA: allotments, 734
Map, 88
Merchant fleet: rating, 709
Minerals: rating, 706, 707
NATO, 150
Navy: rating, 710
Railways: rating, 709
Rulers, 206
SEATO, 150
Structures, 687
Trade, 732, 733
Trade: rating, 709
United Nations, 21, 743
Universities, 682
Western European Union, 150
World War I, 349
World War II, 143–45, 348
Franciscan Order: Founded, 699
Franco, Francisco, 143, 647
Franco-Prussian War, 699
Frankfort, Ky., 257
Franklin Institute, 318
Fraternity: First, 702
Fraud, 125, 126
Frazier-Lemke Act, 332
Frederick, Md., 259
Freedom of press, 699
Freedoms: Constitutional, 415
Freeloader: Defined, 156
Freemasonry, 703–04
Freer Gallery, 318
Freezing point: Water, 428
Freezing rain, 35
Freight, 723
Freight ton, 429
French and Indian War, 701
French Equatorial Africa, 581
Agriculture: rating, 707, 708
Area & population, 577
French Guiana. *See* Guiana
French Guinea. *See* Guinea
French India. *See* India
French Morocco. *See* Morocco
French Pacific Settlements, 587
Area & population, 577
French Revolution, 699
French Somaliland. *See* Somaliland
French Sudan. *See* Sudan
French West Africa, 581–82
Agriculture: rating, 707
Area & population, 577
Frequency modulation:
Defined, 156
Invention, 434
Stations: by city, 275–84
Stations: U. S., 297
Fresno, Calif., 98, 491

Frick Collection, 317
Friendly Islands. *See* Tonga
Friends (Quakers), 441
Fronts: Weather, 39
Fruit:
  Consumption, 714
  Exports & imports, 731
  Income: marketing, 725
  Prices, 725
Fuchs, Dr. Klaus, 147
Fuel:
  Electricity source, 714
  Price index, 712, 723
  Production, 715
  See also Coal; Gas; Oil
Fujiyama, 676
Furies (myth.), 198
Furniture industry:
  Establishments, 722
  Furniture center of U. S., 260
  Hours worked, 717
  Price index, 723
  Production index, 715
  Sales, 722
  Stores: leading, 724
  Wages, 717
Furs: Imports, 731

— G —

GI Bill of Rights, 349
Gabon, 577
Gadsden, Ala., 98, 251
Gadsden Purchase, 100
Galilee, Sea of, 608
Gallon: Defined, 427
Galveston, Tex., 98
Gambia, 524–25
  Area & Population, 515
Gambier, 587
Gambling:
  Arrests, 125
  Nevada, 262
Gandhi, Mohandas K., 146
Ganges, 674
Garden City, Kans., 491
Gardner Museum, 320
Garfield, James A.:
  Biography, 375
  Cabinet, 394
  Election, 357
  Family, 383
  Minority President, 419
  Nomination, 355
Garner, John N., 381
Cary, Ind., 98, 256
Gas Industry:
  Earnings & hours worked, 718
  Kerr bill, 335
  Price index, 712
  Production, 715
Gases, Laws of: Discovery, 435
Gasoline:
  Exports, 731
  Rationing: start, 145
  Sales, 722
  Stations: number, 722
  Tax: by state, 287
General Assembly. *See* United Nations
General Motors, 146
General Sherman Tree, 252
Generals: Armed Forces, 392
Geneva, Switzerland, 651
  Asian conference (1954), 148
Geneva Conference (1955), 16–17
Genoa, Italy, 691
Genocide: Defined, 156
Geodetic center: North America, 257
Geographic centers:
  North America, 265
  States, 251–71
  United States, 134
Geographical mile, 429
Geography:
  U. S.: boundaries, 134
  U. S.: coastline, 137
  U. S.: highest & lowest points, 135
  U. S.: map, 86
  U. S.: mountain peaks, 134
  U. S.: National Park System, 314–16
  U. S.: rivers, 136–37
  World: caves & caverns, 678
  World: deserts, 673
  World: geysers, 678–79
  World: highest & lowest points, 669
  World: islands, 671
  World: lakes, 675
  World: mountain peaks, 670
  World: oceans & seas, 671
  World: rivers, 674–75
  World: volcanoes, 676–77
  World: waterfalls, 672
George VI (England), 143
George II (Greece), 593
George Washington Bridge, 689
Georgia:
  General information, 255
  Accidental death rates, 118
  Agriculture: statistics, 726, 727
  Altitudes, 135
  Area: land, 96
  Births: number, 109
  Congress: members, 384, 387
  Constitution: ratified, 407
  Death rates, 118
  Deaths: infants, 115
  Deaths: motor-vehicle, 119
  Deaths: number, 115
  Divorces: statistics, 106, 107
  Economy: statistics, 726, 727
  Education: Negroes, 131
  Education: statistics, 127, 130
  Elections: statistics, 359–66
  Executions: method, 126
  Families: number, 113
  Government, 285
  Highest, lowest points, 135
  Holidays, 454
  Hospitals: number, 120
  Map, 83
  Marriages: statistics, 105
  Motor vehicles: deaths caused by, 119
  Motor vehicles: laws, 287
  Newspapers: number, 296
  Population: density, 96
  Population: growth, 96
  Population: marital status, 104
  Sherman's March, 698
  Shore line, 137
  Time zone, 86
  Tornadoes (1936), 693
  Unemployment: compensation, 741
  Voting: qualifications, 367
German Democratic Republic (East Germany):
  General information, 591–92
  Agriculture: rating, 707, 708
German Federal Republic (West Germany):
  General information, 589–91
  Agriculture: rating, 707, 708
  Birth rate, 111
  Currency: par value, 734
  Death rate, 116
  Diplomats: U. S., 339
  ECA: allotments, 734
  Employment: rating, 709
  Industry: production, 730
  Industry: rating, 708, 709
  Life expectancy, 124
  MSA: allotments, 734
  Minerals: rating, 706, 707
  NATO, 148
  Peace contract (1952), 336
  Railways: rating, 709
  Trade, 732, 733
  Trade: rating, 709
  U.S.S.R., 17
  Western European Union, 148
Germany:
  General information, 587–92
  Jewish persecution, 142, 143
  Labor: purchasing power, 713
  League of Nations, 743
  Libraries, 683
  Occupation: plans, 399–400
  Peace resolution (1951), 336
  Reichstag building burned, 142
  Rulers, 207
  U.S.S.R.: nonagression pact, 143
  Universities, 682
  World War I, 349
  World War II, 143–45, 333, 348, 399–400
  Zoos, 685
  See also Hitler
Gestation periods of animals, 673
Gettysburg, Battle of, 698
Gettysburg Address, 419
Geysers, 678–79
Ghetto: Defined, 157
Gibraltar, 522
  Area & population, 515
Gilbert and Ellice Islands, 550
  Area & population, 515
Girl Scouts of the U.S.A., 704
Glacier National Park, 315
Glasgow, Scotland, 514
Glass Industry:
  Hours worked, 717
  Production, 715
  Wages, 717
Glass-Owen Bill, 329
Glass-Steagall Banking Act, 331
Glendale, Calif., 98
Gobbledygook: Defined, 157
Gobi Desert, 673
Gods & Goddesses, 196–204
Godwin Austen (mt.), 670
Goering, Hermann, suicide, 146
Gold:
  Carat: defined, 429
  Embargoed, 142
  Gold Reserve Act, 331
  Gold rush, 699
  Production: world, 706
  Value of dollar cut (1934), 142
Gold Coast, 525
  Area & population, 515
  Minerals: rating, 706
Gold standard: U. S. goes off, 142
Goldbrick: Defined, 157
Golden Gate Bridge, 689
Golf:
  1955 champions, 853, 856, 857
  Amateur, 778, 780
  British champions, 779, 780
  College, 780
  Course, highest, 263
  Cups, 781
  History, 777
  Measurements, 814
  Professional, 779, 857

Public Links, 778
U. S. Open, 777
Good Friday, 451, 453, 454
Good-neighbor policy, 327
Googol: Defined, 157
Gorgons (myth.), 198
Gotland, 650
Government:
Cities: mayors, etc., 286
States: employment, 719
States: governors, etc., 285
U. S.: education, 128
U. S.: employment, 719
U. S.: Executive Depts., 389–90, 391–92
U. S.: expenditure, 710, 713, 729
U. S.: income, 730
U. S.: independent agencies, 390–91, 392
U. S.: public debt, 728
U. S.: receipts, 729
U. S.: salaries, 382
Governors:
First woman governor, 271, 703
States: names, 251–71
States: terms & salaries, 285
Governors General: Canada, 533
Graces (myth.), 198
Graduates, 128, 130
Graf Spee, 144
Grain:
Exports, 731
Imports, 731
Income: marketing, 725
Prices, 725
Gram: defined, 426
Gran Chaco, 505–06, 510
Grand Canyon National Park, 315
Grand Coulee Dam, 270, 688
Grand Forks, N. Dak., 98, 265
Grand Island, Nebr., 262
Grand Junction, Colo., 491
Grand National Steeplechase, 831
Grand Rapids, Mich., 260
Area & population, 98
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 294
Time of day, 491
Grand Teton National Park, 315
Grant, Ulysses S.:
Biography, 374–75
Cabinet, 394
Elections, 357
Family, 383
Hall of Fame, 468
Nominations, 355
Tomb, 688
Grassroots: Defined, 157
Gravitation: Discovery of law of, 435
Gray-Snyder case, 701
Great Arabian Desert, 673
Great Australian Desert, 673
Great Britain (isl.): Area, 671
Great Britain and Northern Ireland, United Kingdom of:
General information, 514–22
Agriculture: rating, 707, 708
Airlines: rating, 708
Armed forces: rating, 710
Birth rate, 111
Church of England, 450
Currency: par value, 734
Death rate, 116
Destroyers from U. S., 144
Diplomats: U. S., 339
ECA: allotments, 734
Employment: rating, 709
Hydrogen bomb, 10
Industry: production, 730
Industry: rating, 708, 709
League of Nations, 743
Life expectancy, 124
Loan: U. S., 333
MSA: allotments, 734
Map, 87
Merchant fleet: rating, 709
Minerals: rating, 706, 707
Museums, 684–85
Nationalizes coal mines, 146
NATO, 150
Navy: rating, 710
Prime ministers, 205
Railway: rating, 709
Rulers, 204–05
SEATO, 150
Structures, 687
Telephones: rating, 709
Trade, 732, 733
United Nations, 743
Universities, 682
Western European Union, 150
World War I, 349
World War II, 143–45
Zoos, 686
Great Central Plain, 34
Great Falls, Mont., 261
Climate, 43
Great Lakes, 675
Great Salt Lake, 269, 675
Great Salt Lake Desert, 673
Great Smoky Mts. Natl. Park, 315
Great Wall of China, 687, 699
Greece:
General information, 592–94
Aid bills: U. S., 334, 335
Ancient, 680
Currency: par value, 734
Diplomats: U. S., 339
ECA: allotments, 734
Industry: production, 730
Industry: rating, 709
League of Nations, 743
Life expectancy, 124
MSA: allotments, 374
Minerals: rating, 706
NATO, 150
Structures, 686
Trade: with U. S., 732, 733
United Nations, 742, 743
World War I, 349
World War II, 144, 348
Greek letters, 181–91
Greek mythology, 196, 202
Greek Orthodox Church, 438
Greeley, Colo., 253
Greeley, Horace, 355, 357
Green Bay, Wis., 98
Greenback party, 357
Greenland, 566–67
Greensboro, N. C., 98
Greenville, Miss., 260
Greenville, S. C., 98, 267
Greenwich, England, 476
Gregorian Calendar, 699
Gremlin: Defined, 157
Griffith Planetarium, 500
Groceries:
Sales, 722
Stores: leading, 724
Wholesale: establishments, 722
See also Food
Gross (meas.), 429
Gross national product, 705, 710
Ground-hog day, 41
Grounds for divorce, 107
Guadalcanal, 550
Guadalupe Hidalgo, Treaty of, 700
Gladeloupe, 584
Area & population, 577
Guam, 274
Executions: method, 126
World War II, 144
Guatemala:
General information, 594–95
Currency: par value, 734
Diplomats: U. S., 339
Holiday: national, 690
Trade: with U. S., 732, 733
United Nations, 743
Volcanoes, 677
Guggenheim Memorial Foundation, 704
Guggenheim Museum, 317
Guiana, British, 531
Area & population, 515
Minerals: rating, 706
Guiana, Dutch. *See* Surinam
Guiana, French, 584
Area & population, 577
Guinea, French, 577
Guinea, Portuguese, 642
Guinea, Spanish, 648
Gulf of Mexico. *See* Mexico, Gulf of
Gulf Stream, 33, 34
Guncotton: Invention, 434
Gunpowder Plot, 699
Gustavus VI (Sweden), 649
Gutenberg: Printing, 434
Gymnastics, 808, 853, 856, 858
Gyrocompass: Invention, 434
Gyroscope: Invention, 434

H

Haakon, VII, 630
Hagerstown, Md., 259
Hague, The, Netherlands, 626
Hail, 35
Haile Selassie, 572
Hailstones: Large, 680
Haiti:
General information, 595–96
Currency: par value, 734
Diplomats: U. S., 339
Holiday: national, 690
Hurricanes, 693
Trade: with U. S., 732, 733
United Nations, 743
U. S. intervention, 382
Halicarnassus: Mausoleum, 668
Hall of Fame:
Baseball, 319, 773
Great Americans, 468
Hockey, 804
1955 Elections, 15
Halley's Comet, 496–97
Hambletonian, 840
Hamburg, Germany, 589
Hamilton, Alexander, 393
Duel with Burr, 699
Hamilton, Ohio, 98
Hamilton, Ontario, 532
Hammarskjöld, Dag, 147
Hammond, Ind., 98
Hammurabi, Code of, 698
Hand (meas.), 429
Handball, 808, 852
Hanford Engineer Works, 270
Hanging: States using, 126
Hanging Gardens, 668
Hanukkah, 452, 453
Harding, Warren G.:
Biography, 378
Cabinet, 395
Election, 358
Family, 383
Nomination, 355
Hardware Industry:
Establishments, 722
Hours worked, 717

Hardware Industry—(cont.)
Sales, 722
Wages, 717
Harmsworth Trophy, 843
Harness racing, 840–41
Harpers Ferry: Raid, 698
Harrisburg, Pa., 266
Area, 98
Newspapers: leading, 294
Population, 98
Harrison, Benjamin:
Biography, 376
Cabinet, 395
Election, 357
Family, 383
Minority President, 419
Nominations, 355
Harrison, William Henry:
Biography, 371
Cabinet, 393
Election, 356
Family, 383
Hartford, Conn., 253
Newspaper: leading, 294
Population: growth, 98
Wadsworth Atheneum, 321
Harvard Observatory, 500
Harvard University, 683
Harvest, Feast of, 452
Hashemite Kingdom. *See* Jordan
Hasting, Battle of, 699
Hastings, Nebr., 262
Hattiesburg, Miss., 260
Hauptmann, Bruno Richard, 143
Haute Volta, 581
Area & population, 577
Havana, Cuba, 561–62
Havre, Mont., 491
Hawaii:
General information, 272
Agriculture: rating, 708
Congress: member, 388
Executions: method, 126
Flood, 692
Holidays, 454
Map, 75
National Convention delegates, 354
Unemployment: compensation, 741
U. S. intervention, 382
Volcanoes, 676–77
Hawaii National Park, 315
Hawes-Cutting Bill, 331
Hawley-Smoot Tariff, 331
Hay-Bunau, Varilla Treaty, 329
Hay Industry:
Income: marketing, 725
Prices: farm, 725
Hay-Pauncefote Treaty, 329
Hayden Planetarium, 500
Hayes, Rutherford B.:
Biography, 375
Cabinet, 394
Election, 357
Family, 383
Minority President, 419
Nomination, 355
Headline History of Our Times, 138–50
Health:
Services: employment, 719
WHO, 747
Health, Education and Welfare, U. S. Dept. of, 390, 392
Secretaries, 396
Heard Museum, 320
Heart disease: Death rates, 117
Heat lightning, 37
Heavy hydrogen: Discovery, 435
Hebrew letters, 181–91
Hebrides, 520
Hectare, 425
Hegira, 699
Hejaz, 646
Helena, Mont., 261, 491
Helicopters:
First, 471
First transatlantic flight, 471
Invention, 434
Leonardo da Vinci, 469
Records, 473
Types, 474, 475
Heliocentric theory, 435
Helium:
Discovered on sun, 435
First used in balloons, 470
Hell Gate Bridge, 689
Helsinki, Finland, 573
Hemingway, Ernest: Crash, 148
Hepburn Rate Bill, 329
Hercules: Labors of, 199
Heredity laws: Discovery, 435
Hermetic sealing, 434
Herron Museum, 320
Hess, Rudolph: Flight, 144
Hexagon: Area, 427
Hickok Award, 812
Hides. *See* Leather
High fidelity: Defined, 157
High schools. *See* Schools
Highways:
Construction, 716
Employment, 719
Himalayas, 626
Hindenburg, Paul von, 141, 142
Hindenburg (zeppelin): Burns, 143, 695
Hindus: Number, 437
Hirohito, 613
Hiroshima, Japan, 145
Hispanic Society, 317
Hispaniola: Area, 671
Hiss, Alger, 147, 148
Historic Sites, National, 316
Historical Parks, National, 315
History:
Ancient empires, 680
Events: ancient to modern, 698, 702
Explorations & discoveries, 667–68
Firsts in America, 702–03
Headline History of Our Times, 138–50
Historical & news events, 698–702
Pulitzer prizes in, 463
United States, 322–28
See also Chronology
Hitler, Adolf:
Chancellor of Germany, 142
Munich beer hall putsch, 141
Death, 145
Dictator of Germany, 142
Wounded in bomb plot, 145
Hoboken, N. J., 98
Hockey:
1955 champions & records, 846–47, 853
Amateur,
Hall of Fame, 804
History, 804
Measurements, 814
Professional, 804
Stanley Cup, 804
Hogs:
Prices: farm, 725
Production: U. S., 726
Production: world, 707
Hogshead (meas.), 429
Hokkaido: Area, 671
Holidays:
American countries, 690
Flag display, 422–23
Religious & secular, 451–54
Holland. *See* Netherlands
Holly: Christmas, 453
Hollywood Gold Cup, 832, 857
Holy Alliance, 699
Holy Roman Empire, 699
Holy Saturday, 453
Holyoke, Mass., 98
Home Owners Refinancing Act, 331
Homes: Equipment, 711, 714
See also Housing
Homestake (mine), 267
Homicides, 125
Honduras:
General information: 596–97
Currency: par value, 734
Diplomats: U. S., 339
Holiday: national 690
Minerals: rating, 707
Trade: with U. S., 732, 733
United Nations, 743
Honduras, British, 531
Area & population, 515
Hong Kong, 540
Area & population, 515
Trade, 732
Typhoon (1906), 693
Honolulu, Hawaii, 272, 294, 491
Honshu: Area, 671
Hood, Mt., 670
Hood (warship), 144
Hooperating: Defined, 157
Hoover, Herbert:
Biography, 378–79
Cabinet, 396
Election, 359
Family, 383
Nominations, 355
Hoover Dam, 688
Hoquiam, Wash., 491
Horse racing, 827–38
1955 champions & records, 857
Citation: record, 838
History, 827
Horses, leading money winners, 838
Jockeys: leading, 838
Man O' War: record, 837
Owners: leading money winners, 838
Stakes: winners, 827–35, 857
Thoroughbred Racing Assns., 837
Tracks: number, 720
Trainers: leading, 838
Triple Crown, 831
Wagering, 836
World records, 836
Horsepower: Defined, 429
Horses: On farms, 726
Horseshoe pitching, 860
Hospitals:
Construction, 716
Employment, 719
Number, 120
Hot rod: Defined, 157
Hot Springs, Ark., 252
Hot Springs National Park, 315
Hotels:
Hours worked, 718
Number, 720
Wages, 718
House of Burgesses, 702
House of Representatives:
Apportionment, 386, 408, 416
Composition, 408
First woman member, 703
Members, 386–88
President elected by, 416
Qualifications, 408
Salaries, 338, 382
Shooting (1954), 148
Speakers, 398
Terms, 408
Terms: end of, 418

Households: U. S., 112
Housing:
Construction, 713, 716
Consumer spending, 712
Legislation, 331–38
Price index, 712
Housing and Home Finance Agency, 391, 392
Houston, Tex.:
General information, 268
Government, 286
National Convention, 355
Newspapers: leading, 294
Population: growth, 98
Howland Island, 273
Huckster: Defined, 157
Hudson Bay, 671
Hudson River, 136
Hughes, Charles E.:
Nomination for President, 355
Secretary of State, 395, 396
Supreme Court, 397
Vote for President, 358
Huguenots, 699, 701
Humidity, 36, 42–44
Hundred Years' War, 700
Hungary:
General information, 597–99
Birth rate, 111
Death rate, 116
Diplomats: U. S., 339
Life expectancy, 124
Mindszenty sentenced, 147
Minerals: rating, 706
World War I, 349
World War II, 334, 348, 598
Huntington, W. Va., 98, 270
Huntington Library, 320
Huron, Lake, 675
U. S.: water area, 137
Huron, S. Dak., 267
Hurricanes, 26–29, 693
Paths: maps, 84–85
Hutchinson, Kans., 257
Hwang Ho, 674
Hydrogen bomb, 147, 148
Britain to produce, 10
Fall-out damage, 10
59 U. S. cities "hit," 12
Hydroplane: Invention, 434

—— I ——

Ice hockey. *See* Hockey
Ice skating, 810–11, 850
Iceland:
General information, 599–600
Currency: par value, 734
Diplomats: U. S., 339
ECA: allotments, 734
Geysers, 678
International Bank, 734
Life expectancy, 124
MSA: allotments, 734
NATO, 150
Telephones: rating, 709
Trade with U. S., 732, 733
United Nations, 743
Volcanoes, 676
Idaho:
General information, 255–56
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 295
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting qualifications, 367
Idaho Falls, Idaho, 255, 491
Ifni, 648
Illinois:
General information, 256
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Tornado (1925), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Immigration:
Alien Registration Act, 333
Displaced persons, 334
Immigrants: number, 95
Laws: violators, 126
Legislation, 329, 330, 334, 336, 337
Literacy test, 329
Persons barred, 329
Quotas, 141
Racial bars ended, 336
Refugee Act, 337
To U. S.: by year, 95
Impeachments, 397, 409, 413
Imports:
Countries: by year, 732–33
Countries: leading, 709
U. S.: by commodity, 731
U. S.: by year, 732–33
Inauguration date, 354
Incandescent lamp: Invention, 434
Income:
Agricultural, 725
Families, 711
Farm, 725
Government, 730
Insurance companies, 714
National, 710
Per capita: by state, 727
Income tax:
Federal: collections, 729
Federal: established, 417
Federal: legislation, 335, 336, 337, 417
Federal: tables, 735–38
Federal: violators, 126
Incubation period of animals, 673
Independence, Declaration of, 404–06
Independence Day, 452, 454
Independence Hall, 688
Independence party, 358
India:
General information, 541–44
Agriculture: rating, 707, 708
Armed forces: rating, 710
Birth rate, 111, 710
Currency: par value, 734
Cyclones, 693
Death rate, 116
Diplomats: U. S., 339
Earthquakes, 692
International Bank, 734
Life expectancy, 124
Loan: U. S. (1951), 336
Map, 77
Minerals: rating, 706
Railways: rating, 709
Structures, 687
Trade, 732, 733
United Nations, 742, 743
Universities, 682
World War II, 348
India, French, 585
India, Portuguese, 643
Area & population, 641
Indian Ocean, 671
Indiana:
General information, 256
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rate, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104

Indiana—(cont.)
Time zone, 86
Tornado (1925), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Indianapolis, Ind., 256
General information, 278
Auto race, 845
Government, 286
Herron Museum, 320
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 294
Population: growth, 98
Time of day, 491
Indians, American:
Education, 128
Museum exhibits, 317–21
Population, by state, 93
Reservation: largest, 263
Schools: Federal, 132
Indo-China:
General information, 585
Agriculture: rating, 708
Map, 73
Trade: with U. S., 732
Typhoon (1952), 693
Viêt-Nam division, 19
Indo-Chinese War, 146, 148
Indonesia:
General information, 600–01
Agriculture: rating, 707, 708
Currency: par value, 734
Diplomats: U. S., 339
ECA: allotments, 734
Krakatoa explosion, 677
Minerals: rating, 707
MSA: allotments, 734
Trade, 733
United Nations, 742, 743
Volcanoes, 677
Induction: Electric, 435
Indus, 674
Industrial Revolution, 700
Industry:
Construction, 716
Countries: leading, 708–09
Employment, 719
Establishments, 715, 720, 722
Equipment expenditures, 716
Failures: number, 715
Hours worked, 717, 718
Plant & equipment expenditures, 716
Production, 715
Production: chart, 716
Production indexes, 715, 730
Production: West Europe, 730
Schools, 129
Wages, 717, 718
Workers: number, 101, 102
Infant mortality, 115, 117
Infantile Paralysis, National Foundation for, 704
Influenza: Death rates, 117
Information Bureaus: Sports, 762
Information Please, 702
Ingathering, Feast of, 452
Inini. *See* Guiana, French
Inquisition, 700
Insignia: Armed forces, 344
Installment buying, 713
Insulin: Discovery, 435
Insurance:
Companies, 714
Establishments, 715
"Insurance Capital," 253
Life insurance, 714
Old-age insurance, 738–40
Survivors' insurance, 738–40
Unemployment insurance, 740–41
Insured mail, 352
Intelligence testing, 435
Interest:
Public debt, 729
Simple, 428
Inter-Governmental Maritime Consultative Organization, 746
Interior, U. S. Dept. of, 389–90, 392
Education: funds, 128
Secretaries, 394–96
Interior decorators: Number, 720
Internal Security Act of 1950, 335
International Bank, 734, 746
International Civil Aviation Organization, 746
International Court, 146, 747
International date-line, 477
International Folk Art, Museum of, 320
International Labour Organisation, 746
International Monetary Fund, 747
International Refugee Organization, 334
International Telecommunication Union, 747
International Trade Organization, 747
Internationals, 700
3rd dissolved, 145
Interstate commerce:
ICC, 330, 391, 392
Legislation, 329, 333
Thefts, 126
Inventions, 434–35
Iowa:
General information, 256–57
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Iran:
General information, 602–03
Aid: legislation, 335
Currency: par value, 734
Death rate, 710
Diplomats: U. S., 339
Flood, 692
League of Nations, 742, 743
Trade, 732, 733
United Nations, 743
Iraq:
General information, 603–04
Currency: par value, 734
Diplomats: U. S., 339
International Bank, 734
Minerals: rating, 707
Trade: with U. S., 732
United Nations, 743
Ireland:
General information, 604–06
Birth rate, 111
Death rate, 116
Diplomats: U. S., 339
ECA: allotments, 734
Industry: production, 730
Industry: rating, 709
Labor: purchasing power, 713
Map, 87
MSA: allotments, 734
Trade: rating, 709
Ireland (isl.): Area, 671
Ireland, Northern, 516, 521
See also Great Britain
Irish Free State. *See* Ireland
Iron Curtain:
Countries: map, 68–69
Defined, 157
Iron industry:
Exports, 731
Hours worked, 717
Imports, 731
Production: U. S., 717
Production: world, 706, 707
Wages, 717
Irrawaddy, 675
Irvington, N. J., 98
Islam. *See* Mohammedanism
Islands: Areas, 671
Isle of Man, 521–22
Area & population, 515
Isle Royale National Park, 315
Isobars, 39
Isotopes, 432–33, 435
Israel:
General information, 606–08
Birth rate, 111
Death rate, 116
Diplomats: U. S., 339
Egypt, 21
Life expectancy, 124
Map, 21
Trade, 709
United Nations, 743
See also Palestine
Israel (ancient): Kings, 194–95
Istanbul, Turkey, 654
Italian Somaliland. *See* Somalia
Italy:
General information, 608–12
Agriculture: rating, 707, 708
Birth rate, 111
Corfu, 141
Currency: par value, 734
Death rate, 710
Diplomats: U. S., 339
ECA: allotments, 734
Ethiopian war, 142, 143
Industry: production, 730
Industry: rating, 708, 709
International Bank, 734
Labor: purchasing power, 713
League of Nations, 143
Libraries, 683
Life expectancy, 124
Map, 89
MSA: allotments, 734
Merchant fleet: rating, 709
Minerals: rating, 706, 707
NATO, 150
Structures, 686, 687

Trade, 732, 733
Trade: rating, 709
United Nations, 742, 743
Universities, 681–82
Volcanoes, 676
Western European Union, 150
World War I, 349
World War II, 144, 145, 334, 348, 610
Ivory Coast, 581
Area & population, 577
Iwo Jima, 275
World War II, 145

J

Jackson, Andrew:
Biography, 370–71
Cabinet, 393
Elections, 356
Family, 383
Hall of Fame, 468
Jackson, Mich., 98
Jackson, Miss., 98, 260
Jackson, Tenn., 268
Jacksonville, Fla., 255
General information, 278–79
Area, 98
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 294
Population, 98
Time of day, 491
Jakarta, Indonesia, 600
Jamaica, 536
Area & population, 515
Jamestown, N. Dak., 265
Jamestown, Va., 269, 700, 701
Jan Mayen Island, 632
Volcano, 676
Japan:
General information, 612–14
Agriculture: rating, 707, 708
Anti-Comintern treaty, 143
Birth rate, 111
China: invasion of, 143
Currency: par value, 734
Death rate, 116, 710
Diplomats: U. S., 339
Earthquake (1923), 692
Employment: rating, 709
Exploration, 667
Floods, 692
Hurricane (1934), 693
Industry: rating, 708, 709
International Bank, 734
League of Nations, 142
Libraries, 683
Life expectancy, 124
Merchant fleet: rating, 709
Minerals: rating, 706, 707
Railways: rating, 709
Surrender: terms, 400–01
Trade, 733
Trade: rating, 709
Treaty, 336, 403
Typhoon (1954), 693
Volcanoes, 676
World War I, 349
World War II, 333, 348, 399–401
Japan, Sea of, 671
Japanese (U. S.), 93
See also Nonwhite races
Jarvis Island, 273
Java, 600–01
Area, 671
Landslide (1955), 692
Volcanoes, 677
Jefferson, Thomas:
Biography, 368–69
Cabinet, 393
Elections, 356
Family, 383
Hall of Fame, 468
Jefferson City, Mo., 261
Jersey (isl.), 522
Jersey City, N. J.: 263
General information, 279
Government, 286
Population: growth, 98
Jerusalem, 700
Jesuits: Founded, 700
Jesus Christ:
Ascension, 452, 453
Crucifixion, 699
Jet propulsion:
Airplane flights, 471
Ancient Greeks, 469
Defined, 158
Jet stream, 31, 32
Jewelry:
Birthstones, 205
Carat: defined, 429
Consumer spending, 712
Jewish months, 181–91
Jewish New Year, 452
Jews:
Deprived of German citizenship, 142
Holidays, 451–53
"Jewish race," 435
Nazi persecution, 142, 143
Number, 437, 441
Organizations, 451
Russian physicians arrested, 147–48
Jive: Defined, 158
Joan of Arc, 700
Johns Hopkins Hospital, 259
Johnson, Andrew:
Biography, 374
Cabinet, 393
Family, 383
Impeachment, 398
Johnson Debt Default Act, 331
Johnston Island, 274
Johnstown, Pa., 98, 692
Joint Chiefs of Staff, 392
Joliet, Ill., 98
Jordan (kingdom), 614–15
Currency: par value, 734
Diplomats: U. S., 339
Jordan (river), 608
Journalism: Pulitzer Prizes, 460–62
See also Newspapers
Judah: Ancient kings, 194
Judges: International Court, 747
Judiciary Act, 332
Julian Calendar, 699
Juneau, Alaska, 271
Jupiter (god): Statue, 668
Jupiter (planet), 493, 498
Symbol, 496
Jury trial, 413
Justice, U. S. Dept. of., 389, 392
Attorneys General, 393–96
Education: Funds, 128
Justices:
Supreme Court, 397
Supreme Court: salaries, 382
Justinian Code, 700
Jutland, Battle of, 702
Juvenile delinquency, 126

K

K2, 670
Kalamazoo, Mich., 98
Kamchatka: Volcanoes, 676
Kanchenjunga, 670
Kansas:
General information, 257
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Kansas City, Kans., 257
Area & population, 98
Kansas City, Mo.: 261
General information, 279
Area, 98
Climate, 43
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
National Conventions, 355
Nelson Gallery, 321
Newspapers: leading, 294
Population, 98
Time of day, 491
Kansas-Nebraska Act, 700
Kapp Putsch, 141
Kashmir, 542, 543, 742
Keating-Owen Act, 329
Kellogg-Briand Pact, 141, 331
Kellogg Foundation, 704
Kenosha, Wis., 98, 271
Kentucky:
General information, 257–58
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 386
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120

Kentucky—(cont.)
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Tornado (1925), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Kentucky Derby, 832, 857
Kentucky Lake, 258
Kenya, 523–24
Area & population, 515
Kerr Bill, 335
Ketchikan, Alaska, 271
Key, Francis Scott, 421
Key West, Fla., 491
Keynesian: Defined, 158
Kharkhov, U.S.S.R., 656
Khojak Pass, 502
Khruschev, Nikita:
Visit to Yugoslavia, 17
Khyber Pass, 502
Kickback: Defined, 158
Kidnapings:
Lindbergh baby, 143
Prisoners, 126
Kiev, U.S.S.R., 691
Kilimanjaro, 676
Killarney, Lakes of, 606
Kilogram: Defined, 426
Kindergarten: Enrollments, 129
Kinescope: Defined, 158
King James Version of Bible, 698
Kingman Reef, 274
Kings:
England, 204–05
France, 206
Israel & Judah, 194–95
Prussia, 207
Kings Canyon National Park, 315
Kingston, Ont., 491
Kiwanis International, 704
Klamath Falls, Oreg., 491
Knights of Columbus, 704
Knights of Pythias, 704
Knot (meas.), 429
Know-Nothing party, 356
Knoxville, Tenn., 98, 268, 294, 491
Kodak: Invention, 434
Korea:
General information, 615–17
Aid: legislation, 335
Diplomats: U. S., 339
Life expectancy, 124
Trade: with U. S., 733
United Nations, 743
Korean War:
Casualties, 347
Combat pay, 345
Events, 147–48
Veterans: benefits, 349
Krakotoa, 30, 677, 692
Kremlin (bldg.), 686
Kurile Islands: Volcanoes, 176
Kuwait, 503
Trade: with U. S., 732

— L —

Labor:
AFL-CIO merger plan, 10
Antitrust laws, 329, 330, 331
Children, 329, 333
Closed shops: prohibited, 334
Employment, 719
Escalator clause, defined, 156
Featherbed rule, 156
Hours worked per week, 717
ILO, 746
Injunctions: limited, 331
Labor force, 101, 719
Legislation, 329–33
Lockouts: number, 721
NLRB, 332, 391, 392
Occupations, 101
Purchasing power, 713
Railroads: hours, 329
Strikes, 333, 718
Taft-Hartley Act, 334, 336
Unemployment, 102, 719
Unemployment: compensation, 741
Unions: leading, 721
Wages, 717
Wages: legislation, 331, 335
Wagner-Connery Act, 332
Women, 102
Working population, U. S., 101
Worktime needed to buy food, 713
Yellow-dog contracts: outlawed, 331
Labor, U. S. Dept. of, 390, 392
Secretaries, 395–96
Labor Day, 452, 453, 454
Labors of Hercules, 199
Labrador, 667
Lacquer. *See* Paint
Lacrosse, 799, 825, 847, 853
Lake Champlain, Battle of, 702
Lake Charles, La., 258
Lake Erie, Battle of, 702
Lakes:
Highest lake, 253
Large lakes, 675
Largest man-made lake, 258
Lakewood, Ohio, 98
Lamb: Prices, 725
"Lame Duck Amendment," 417–18
Lamps: Inventions, 434
Lancaster, Pa., 98, 420
Land:
Arable, 708
Farm, 725
"Land of 10,000 Lakes," 260
Lander, Wyo., 491
Landon, Alfred M., 355, 361
Languages, 681
Lansing, Mich., 98, 259
Laos, 586–87
Area & population, 577
Diplomats: U. S., 339
Laramie, Wyo., 271
Larceny, 125
Laredo, Tex., 98
Lassen Peak, 677
Lassen Volcanic National Park, 315
Las Vegas, Nev., 262, 491
Lateran Treaty, 662
Latin America: Population, 92
Latitudes: Cities, 490, 491
Latter-day Saints, 441, 700
Latvia:
General information, 617–18
Diplomat: U. S., 339
See also Union of S.S.R.
Laundries:
Earnings & hours worked, 718
Number, 720
Lawn bowling, 863
Lawn tennis, 782–85, 791
Lawrence, Mass., 98
Laws:
Divorce: by state, 106
Marriage: by state, 105
Motor-vehicle: by state, 287
Passed by Congress, 329–38
School-attendance, 130
Lawton, Okla., 265
Layton Gallery, 320
Lead:
Imports, 731
Production: U. S., 717
Production: world, 706
League (meas.), 429
League of Nations:
Dissolved, 146
Established, 140
Germany quits, 142
Italy quits, 143
Japan quits, 142
Members, 743
U.S.S.R. expelled, 144
World Court, 330, 332
Leaning Tower of Pisa, 686
Leather industry:
Hours worked, 717
Prices, 723
Production, 715
Wages, 717
Lebanon:
General information, 617–18
Currency: par value, 734
Diplomats: U. S., 339
Trade: with U. S., 732, 733
United Nations, 743
Lee, Robert E., 468
Leeds, England, 514
Leeward Islands, 536
Area & population, 515
Legislatures: Statistics, 285
Leipzig, Germany, 591
Battle of, 700
Lend-Lease Act, 333
Length: Measures, 425
Lenin, Nikolai, 140, 657
Leningrad, U.S.S.R., 656
Libraries, 683
Museum, 684
Lens: Bifocal, invention, 434
Lent, 451
Leopold-Loeb case, 700
Lesbos, 594
Lesser Antilles, 676
Lesser Sunda Islands, 677
Lethal gas:
First state to use, 262
States using, 126
Letters:
Greek, 181–191
Hebrew, 181–191
Lewis, John L., 146
Lewis and Clark expedition, 667
Lewiston, Idaho, 255, 491
Lewiston, Maine, 258
Lexington, Ky., 98, 257
Lexington-Concord, Battle of, 698
Leyte (carrier), 694
Liberia:
General information, 618–19
Agriculture: rating, 708
Diplomats: U. S., 339
Merchant fleet: rating, 709
Trade: with U. S., 733
United Nations, 743
Liberty, Statue of, 406
Liberty Bell, 340
Liberty party, 360
Libraries:
Books: postal rate, 351
Colleges, 684
First circulating library, 702
United States, 683–84
World, 683–84
Libya, 619
Diplomats: U. S., 339

Licenses: Automobile, 287
Lick Observatory, 500
Lidice, Czechoslovakia, 145
Lie, Trygve, 146, 744
Liechtenstein, 619–20
Life expectancy, 120–24
Life Insurance. *See* Insurance
Light:
  Electromagnetic theory, 435
  Velocity, 499
  Velocity: discovery, 435
Light-year: Defined, 429
Lighthouse: Oldest in U. S., 263
"Lighthouse of Mediterranean," 676
Lightning:
  Cause, 37
  "Never strikes twice," 41
Lightning rod: Invention, 434
Lights, Festival of, 452–53
Lima, Ohio, 98
Lincoln, Abraham:
  Biography, 373–74
  Birthday (holiday), 451, 454
  Burial place, 256
  Cabinet, 394
  Elections, 357
  Emancipation Proclamation, 608
  Family, 383
  Gettysburg Address, 419
  Hall of Fame, 468
  Lincoln Memorial, 687
  Minority President, 419
  Mt. Rushmore carving, 267
  Nominations, 355
Lincoln, Nebr., 98, 262, 491
Lindbergh, Charles A.:
  Atlantic flight, 700
  Kidnap case, 143
Link (meas.): Defined, 429
Linotype machine: Invention, 434
Lions Clubs, 704
Liquor:
  Consumer spending, 712
  Employees: state, 719
  Establishments, 722
  Imports, 731
  Laws: violators, 125, 126
  Legislation, 330, 331
  Prohibition, 142, 330, 417
  Repeal, 142, 418
  Sales, 722
  States prohibiting, 261
  3.2 wine & beer, 331
  Volstead Act, 330
Lisbon, Portugal, 639
  Earthquake, 692
  Museum, 685
Liter: Defined, 426
Literacy tests:
  Immigrants, 329
  Voting applicants, 367
Literature:
  Nobel Prizes, 455–56
  Pulitzer Prizes, 462–64
Lithography: Invention, 434
Lithuania:
  General information, 620
  Diplomat: U. S., 339
  See also Union of S.S.R.
Little Big Horn, Battle of, 699
Little Colorado River, 136
Little Rock, Ark.:
  Area, 98
  Newspaper: leading, 294
  Population, 98
Liverpool, Eng., 514
  Museums, 685
Livestock: On farms, 725
Loans:
  International Bank, 734
  Veterans, 349
Lobotomy: Defined, 158
Locarno Conferences, 700
Lockouts: Number, 721
Locksmith shops: Number, 720
Loeb-Leopold case, 700
Logan, Utah, 268
Logan International Airport, 259
London, England:
  British Museum, 683, 684
  Fire, 693
  Longitude & latitude, 490
  Museums, 684, 685
  Plague, 700
  Population, 514
  Time of day, 490
  Zoo, 686
London, Ont., 491
London Economic Conference, 142
London Naval Pact, 141
Long, Huey, 142, 340
Long Beach, Calif., 98, 252, 279
Long Island: Map, 84–85
Long Island, Battle of, 698
Long Island Sound, 137
Longevity: Animals, 673
Longitudes: Cities, 490, 491
Longs Peak, 134
Lookout Mountain, Battle of, 698
Lorain, Ohio, 98
Lords, House of. *See* Parliament
Los Alamos, N. Mex., 263
Los Angeles, Calif., 252
  General information, 279
  Climate, 43
  Government, 286
  Longitude & latitude, 491
  Magnetic declination, 491
  Museums, 320, 321
  Newspapers: leading, 294
  Planetarium, 500
  Population: growth, 98
  Population: world rank, 691
  Smog condition, 37
  Time of day, 491
Louis XVI: Beheaded, 700
Louis, Joe: Record, 796
Louisiana:
  General information, 258
  Accidental death rates, 118
  Agriculture: statistics, 726, 727
  Altitude, 135
  Area: land, 96
  Births: number, 109
  Congress: members, 384, 387
  Death rates, 118
  Deaths: infants, 115
  Deaths: motor-vehicle, 119
  Deaths: number, 115
  Divorces: statistics, 106, 107
  Economy: statistics, 726, 727
  Education: Negroes, 131
  Education: statistics, 127, 130
  Elections: statistics, 359–66
  Executions: method, 127
  Families: number, 113
  Government, 285
  Highest, lowest points, 135
  Holidays, 454
  Hospitals: number, 120
  Map, 83
  Marriages: statistics, 105
  Motor vehicles: deaths caused by, 119
  Motor vehicles: laws, 287
  Newspapers: number, 296
  Population: density, 96
  Population: growth, 96
  Population: marital status, 104
  Shore line, 137
  Time zone, 86
  Unemployment: compensation, 741
  Voting: qualifications, 296
Louisiana Purchase, 100
Louisville, Ky., 257
  General information, 279–80
  Area, 98
  Government, 286
  Longitude & latitude, 491
  Magnetic declination, 491
  Newspaper: leading, 294
  Population, 98
  Time of day, 491
Louvre, 684
Lowell, Mass., 98
"Lowell of the South," 255
Lower California, 622
Loyalty Islands, 587
Loyalty oath: Defined, 158
Lubbock, Tex., 98
Lumber industry:
  Establishments, 722
  Hours worked, 717
  Prices, 723
  Production, 715
  Sales, 722
  Wages, 717
Luray Cavern, 678
Lusitania (ship), 697
Luther, Martin, 701
Lutheran Churches, 439
Luxemburg:
  General information, 620–21
  Birth rate, 111
  Currency: par value, 734
  Death rate, 116
  Diplomats: U. S., 339
  ECA: allotments, 734
  Employment: rating, 709
  Industry: production, 730
  International Bank, 734
  MSA: allotments, 734
  Minerals: rating, 706, 707
  NATO, 150
  Trade, 732, 733
  United Nations, 743
  World War II, 144
Luzon: Area, 671
Lynn, Mass., 98
Lysenkoism, 158

M

Macao, 642
  Area & population, 641
MacArthur, Douglas, 144, 147
McCarran-Walter Immigration Bill, 336
McCarthy, Joseph R., 147, 148
McClellan, George B., 335, 357
Machine gun: Invention, 434
Machinery industry:
  Establishments, 722
  Exports, 731
  Hours worked, 717
  Imports, 731
  Prices, 723
  Production, 715
  Wages, 717
McKeesport, Pa., 98
McKinley, William:
  Biography, 376
  Cabinet, 395
  Elections, 357
  Family, 383
  Nominations, 355
McKinley, Mt., 670
Macon, Ga., 98, 255
Madagascar, 582
  Area & population, 577
Madeira, 641
Madison, James:
  Biography, 369

Madison, James—(cont.)
Cabinet, 393
Elections, 356
Family, 383
Hall of Fame, 468
Madison, Wis., 98, 270–71
Madrid, Spain, 647
Library, 683
Museum, 684
Surrender, 143
Madura, 600–01
Magazines:
Advertising, 720
Leading magazines, 297
Magellan: Voyage, 667
Magna Carta, 700
Magnetic declinations, 491
Magnum: Defined, 429
Magsaysay, Ramon, 635, 636
Mail: Regulations, 350–53
Mail-order houses:
Leading, 724
Sales, 722
Maine:
General information, 258
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rate, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Maine (battleship), 701
Maize. *See* Corn
Majorca, 649
Majority: Defined, 367
Malayan Federation:
General information, 540–41
Agriculture: rating, 708
Area & population, 515
Minerals: rating, 706, 707
Trade, 732
Malden, Mass., 98
Maldive Islands, 621
Malenkov, Georgi M., 16, 148
Males. *See* Men
Malta, 522
Area & population, 515
Mammoth Cave, 258, 315, 678
Mammoth Hot Springs, 679
Man, Isle of, 521–22
Manchester, Eng., 514
Manchester, N. H., 98, 262
Museum, 685
Manchukuo, 141
Manchuria, 557
Floods, 692
Japanese invasion, 141
Mandalay, Burma, 552
Manganese:
Imports, 731
Production, 706–07
Manhattan:
Area & population, 99
Borough president: name, 281
Island purchased, 700
See also New York, N. Y.
Manila, Philippines, 635
World War II, 144, 145
Manitoba, Lake, 675
Manitoba (province), 534
Mann-Elkins Act, 329
Manslaughter, 125
Manufacturing:
Airplanes, 474, 475
Employment, 719, 727
Establishments, 715
Exports, 731
Hours worked, 717
Imports, 731
Production indexes, 715
Wages, 717, 718
Workers: number, 101
Mao Tse-tung, 555
Maps, 66–89
Africa, 79
Alaska, 80
Asia, 72–73
Austria, 89
Canada, 80
Canal Zone, 81
Central America, 81
Europe, 70–71
Far East, 74–75
Formosa, 74
France, 88
Great Britain, 87
Hawaii, 75
Hurricane paths: U. S., 84–85
India, 17
Iron Curtain Countries, 68–69
Italy, 89
Long Island, 84–85
Middle East, 76
NATO countries, 68–69
North America, 80–81
Northern Hemisphere, 66–67
Oceania, 74–75
Pacific region, 74–75
Panama Canal, 81
Portugal, 88
South America, 78
Spain, 88
Switzerland, 89
U. S., 82–86
U. S.: time zones, 86
Weather maps, 38–40
West Indies, 81
Marco Polo, 667
Marconi, Guglielmo, 434
Mardi Gras, 451
Margaret, Princess, 15
Margarine: Consumption, 714
Mariana Islands, 274, 275
Marie Antoinette: Beheaded, 699
Marihuana, 126
Marine Corps (U. S.):
Allowances, 344, 345
Casualties, 347, 348
History, 343
Insignia, 344
Officers, 344, 392
Pay, 344, 345
Personnel: by year, 348
Ranks, 344
Marine Historical Assn., 320
Maritime Commission, 128
Marne, Battles of, 702
Marquesas Islands, 587
Marriages:
First: median age, 103
Laws: by state, 105
Married couples: number, 112
Married persons: deaths, 117
Married persons: number, 104
Number: by state, 105
Number & rates: by year, 103
Percent of population ever married, 108
Remarriage after divorce, 106
Mars (planet), 492, 498
"Attack" (1938), 143
Symbol, 496
Marshall Islands, 275
Marshall Plan, 335
Martinique, 584–85
Area & population, 577
Volcano, 676, 692
Mary, Queen of Scots, 700
Maryland:
General information, 259
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Masaryk, Jan: Death, 146
Mason and Dixon's Line, 207
Masons (assn.), 703–04
Masqat. *See* Oman
Mass: Units, 426
Mass of the Presanctified, 451
Massachusetts:
General information, 259
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Constitution: ratified, 407
Death rates, 118

Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Massachusetts Handicap, 832, 857
Massive, Mt., 134
Match: Invention, 434
Maternal mortality, 117
Mathematics:
Conversion factors, 430
Cubes & cube roots, 430
Decimals & fractions, 430
Formulas, 427
Interest: simple, 427
Mean & median, 430
Measures, 425–30
Roman numerals, 428
Squares & square roots, 430
Weights, 426–30
Matsu, 19
Matter: Conversion to energy, 427
Matterhorn, 670
Mauna Kea, 272, 676
Mauna Loa, 676
Maundy Thursday, 453
Mauretania (ship), 697
Mauritania, 581
Area & population, 577
Mauritius, 525
Area & population, 515
Mausoleum at Halicarnassus, 668
Maximilian: Executed, 700
Mayflower (ship), 420
Mayflower Compact, 420
Mayors:
Names, 276–84
Terms & salaries, 286
Mc. *See* Mac
Mean (math.): Defined, 430
Measles: Death rates, 117
Measurement ton, 429
Measures:
Defined, 425–30
Sports, 814
Meat:
Consumption, 714
Exports & imports, 731
Income: marketing, 725
Prices: farm, 725
Production: world, 708
Rationing, 145
Wholesale: establishments, 722
Medford, Mass., 98
Medford, Oreg., 266
Median: Defined, 430
Medical care:
Consumer spending, 712
Price index, 712
Veterans, 349
Medicine:
Discoveries, 435
Hospitals, 120
Nobel Prizes, 456–59
Mediterranean Sea, 671
Meetings: How to conduct, 208–15
Megaton: Defined, 158
Mekong, 674
Melbourne, Australia, 545
Melting points: Chemical elements, 432–33
Melville (isl.): Area, 671
Memorial Day, 452, 454
Memorial Park, National, 316
Memorials, National, 316
Memphis, Tenn.: 268
General information, 280
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 294
Population: growth, 98
Time of day, 491
Men:
College graduates, 130
Death rate: by age & year, 116
Deaths, 116, 117, 121–22
Life expectancy, 120–24
Marital status, 104
Marriage, 103, 108
Number, 93
Number: per 100 females, 91
Workers, 101
Mendel laws: Discovery,
Mendès-France, Pierre, 575–76
Mennonites, 441
Mental deficients: Education, 129
Merchant fleets, 709
Merchant Marine Academy, U. S., 342
Mercury (planet), 492, 498
Symbol, 496
Mercury-vapor lamp, 434
Mercy killing: Defined, 158
Meridian, Miss., 260
Merrimac (ship), 700
Mesa, Ariz., 251
Mesa Verde National Park, 315
Mesabi Range, 260
Mesopotamia, 603
Messina, Strait of, 611
Metals industry:
Countries: leading, 706–07
Establishments, 722
Exports, 731
Hours worked, 717, 718
Imports, 731
Prices, 723
Production, 715, 717
Wages, 717, 718
Meteorology: WMO, 747
See also Weather
Meteors, 500
Meter (meas.): Defined, 425
Methodism:
Churches, 439
Founded, 450
Methodist Church, The, 439
Bishops, 443
Metric system, 425–27, 430
Metropolitan Museum, 317
Meuse Argonne, Battle of, 702
Mexican Cession, 100
Mexican War, 347, 700
Mexico:
General information, 621–23
Agriculture: rating, 707
Airlines: rating, 708
Birth rate, 111, 709
Conquest, 667
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
Holiday: national, 690
International Bank, 734
Life expectancy, 124
Minerals: rating, 706, 707
Time zone, 476
Trade, 732, 733
United Nations, 743
U. S. intervention, 382
Volcanoes, 677
Mexico, Gulf of:
Coast line: U. S., 137
Dimensions, 671
U. S.: water area, 137
Mexico City, Mexico, 621
Miami, Fla., 255
General information, 280
Climate, 43
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 294–95
Population: growth, 98
Time of day, 491
Miami Beach, Fla.: Climate, 43
Michael (Rumania): Abdicates, 644
Michigan:
General information, 259–60
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Tornado (1953), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Michigan, Lake, 675
First navigated, 667
U. S.: water area, 137
Micron: Defined, 429
Microscope: Invention, 434
Mid-Canada Line, 80
Middle Ages: Universities, 681–82
Middle Atlantic States:
Economy: statistics, 727
Population: marital status, 104
Middle Congo, 581
Area & population, 577
Middle East: Map, 76

Midway, 274
World War II, 145
Mikhailovic, Gen. Draja, 144
Mil (meas.): Defined, 429
Milan, Italy, 608
Mile runs, 817, 821
Mileages between cities, 288–93
Military Academy (U. S.), 341
Government funds, 128
Military assistance. *See* Foreign Aid
Military forces. *See* Armed forces
Military Parks, National, 316
Military reserve bill, 338
Milk industry:
Consumption, 714
Prices, 725
Production: world, 708
Milky Way, 496
Millimicron: Defined, 429
Milwaukee, Wis., 271
General information, 280
Government, 286
Layton Gallery, 320
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population: growth, 99
Time of day, 491
Mindanao: Area, 671
Mindszenty, Cardinal, 147
Released, 13
Minerals. *See* Coal; Metals
Ming Dynasty, 700
Mining:
Employment, 719
Establishments, 715
Hours worked, 718
Wages, 718
Minneapolis, Minn., 260
General information, 280
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
National Convention, 355
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
Minnesota:
General information, 260
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Minnesota River, 211
Minority Presidents, 419
Minot, N. Dak., 265
Mint Museum of Art, 320
Miquelon. *See* St. Pierre
Mississippi:
General information, 260–61
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Tornadoes (1936), 693
Unemployment: compensation, 741
Voting qualifications, 367
Mississippi River, 136
Discovery, 667
Floods, 692
Missoula, Mont., 261
Missouri:
General information, 261
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Population: marital status, 104
Time zone, 86
Tornado (1925), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Missouri Compromise, 700
Missouri River, 136
Mistletoe: Christmas, 453
Mobile, Ala., 99, 251, 491
Mohammed: Hegira, 699
Mohammedanism, 437
Mohave Desert, 673
Molecular hypothesis, 435
Molotov cocktail: Defined, 158
Moluccas, 600
Momism: Defined, 158
Monaco, 623
Money:
Currency: par values, 734
In circulation, 728
Monetary Fund, 747
Portraits on bills, 328
See also Banks
Money orders, 351
Mongolia, 623–24
Mongolian People's Republic, 623
Mongoloids, 436
Monitor (ship), 700
Monotype machine: Invention, 434
Monroe, James:
Biography, 369–70
Cabinet, 393
Elections, 356
Family, 383
Hall of Fame, 468
Monroe, La., 258
Monroe Doctrine, 419
Montage: Defined, 158
Montana:
General information, 261
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Monte Carlo, Monaco, 623
Montenegro, 349
Montevideo, Uruguay, 661

Montgomery, Ala., 251
  Area, 99
  Confederate capital, 251
  Longitude & latitude, 491
  Magnetic declination, 491
  Population, 99
  Time of day, 491
Months:
  Jewish, 181–91
  Sideral & synodic, 499
Monticello, 269
Montpelier, Vt., 269, 491
Montreal, Que., 491
Monuments, National, 315–16
Moon, 498–99
  Eclipses, 499
  Phases (1956), 478–89
  Rise & set (1956), 478–89
  Symbol, 496
Mooney, Tom: Sentenced, 700
Moose Jaw, Sask., 491
Morehead Planetarium, 500
Mormons, 269, 441, 700
Morning stars (1956), 492–94
Morocco:
  General information, 624–25, 648
  Area & population, 577
  Diplomats: U. S., 339
  French relations, 18
  Minerals: rating, 706
  Trade: with U. S., 733
Morrison Planetarium, 500
Mortality: U. S., 113–20
Moscow, U.S.S.R.:
  Conferences, 145
  Fire (1812), 693
  Kremlin, 686
  Library, 683
  Longitude & latitude, 490
  Museums, 684
  Population, 656
  Time of day, 490
Moses: Leads Jews from Egypt, 700
Moslems. *See* Mohammedanism
Mosques: Famous, 687
Mossadegh, Mohammed, 602
"Mother of Presidents," 269
Mother's Day, 454
Motion pictures:
  Academy Awards, 465–66
  Invention, 434
  N. Y. Critics' awards, 466–67
  Sound pictures: first, 434
  Theaters: number, 720
  Top-grossing films, 704
Motor, A-C: Invention, 434
Motor vehicles:
  Death rates: by states, 118
  Death rates: by year, 117
  Deaths: by state, 119
  Deaths: by year & type, 119
  Domestic traffic, 723
  Exports, 731
  Imports, 731
  Laws: arrests, 125
  Laws: by state, 287
  Production: world, 709
  Sales, 722
  See also Automobiles
Motorboating, 842–43, 864
Mottoes: State, 251–71
Mound State Monument, 320
Moundville, Ala., 320
Mt. *See* name of peak
Mt. Hamilton, Calif., 500
Mt. McKinley National Park, 315
Mt. Rainier National Park, 315, 672
Mt. Vernon, N. Y., 99
Mt. Vernon (Va.), 269
Mt. Wilson Observatory, 500
Mountains:
  Heights: U. S., 134
  Heights: World, 670
  Highest mountain east of Rockies, 267
  Highest mountain in eastern U. S., 264
  Weather factor, 34
  See also Volcanoes
Mozambique, 642
Mukden, Manchuria, 555
Mules: On farms, 726
Muncie, Ind., 99
Munich, Germany:
  Beer-hall putsch, 141
  Longitude & latitude, 490
  Parley (1938), 143
  Population, 589
  State Library, 683
  Time of day, 490
Murders: Number & arrests, 125
Murray, Utah, 268
Muscle Shoals, 330
Muses (myth.), 200
Museums:
  United States, 317–21
  World, 684–85
Music:
  Bands & orchestras: number, 720
  Pulitzer Prizes, 464
Muskogee, Okla., 265
Mussolini, Benito, 145, 609
Mutual Broadcasting System, 297
Mutual Security Agency: Allotments, 734
Mutual Security Appropriation Bill, 336, 337
Mystic, Conn., 320
Mythology:
  Egyptian, 204
  Greek & Roman, 196–202
  Norse, 202–04

N

NATO. *See* North Atlantic Treaty Organization
NRA, 331
Nagasaki, Japan, 145
Name origins of states, 251–71
Names: Family, 59–65
Nampa, Idaho, 255
Nanking, China, 555
Nanes, Edict of, 699
Naples, Italy:
  Library, 683
  Longitude & latitude, 490
  Population, 608
  Time of day, 490
Napoleon: Exiles, 700
Napoleonic Code, 698
Napoleonic Wars, 700
Narcotic Laws:
  Arrests, 125
  Prisoners, Federal, 126
Nashua, N. H., 262
Nashville, Tenn., 268
  Area, 99
  Climate, 44
  Longitude & latitude, 491
  Magnetic declination, 491
  Newspaper: leading, 295
  Population, 99
  Time of day, 491
Nassau, Bahamas, 530
Natal, 528
National Academy of Design, 317
National Air Museum, 318
National Anthem, 421
National Battlefield Parks, 316
National Battlefield Sites, 316
National Broadcasting Co., 297
National Capital Parks, 316
National Cemeteries, 316
National Collection of Fine Arts, 318
National Committees, 383
National Conventions, 354, 355
National defense. *See* Defense, U. S. Dept. of
National Democratic party, 357
National Gallery of Art, 318
National Geographic Society, 704
National Historic Sites, 316
National Historical Parks, 315
National Housing Act, 332, 333
National Income, 710
National Industrial Recovery Act, 331
National Labor Relations Act, 332
National Labor Relations Board, 391, 392
National League. *See* Baseball; Football
National Memorial Park, 316
National Memorials, 316
National Military Parks, 316
National Monuments, 315
National Park System, 314–16
National Parkways, 316
National Recovery Administration, 331
National Republican party, 356
National Security Act of 1947, 334
National Security Council, 389, 391
National Zoological Park, 685
Nations. *See* Countries
Natural gas. *See* Gas
Natural history: Museums, 317–21
Natural resources: World, 706–10
Naturalization, 95–96
Nauru, 548
  Area & population, 515
Nautical mile: Defined, 429
Nautilus (submarine), 9, 148
Navajo museum, 320
Naval Academy, U. S., 341–42
  Government funds, 128
Navies: Leading countries, 710
Navy (U. S.):
  Allowances, 344, 345
  Casualties, 347–48
  Court-martial: cases, 126
  First Admiral, 702
  History, 343
  Insignia, 344
  Legislation, 344–46
  Naval Academy, 341–42
  Officers, 344, 392
  Pay, 338, 344–47
  Personnel: by year, 348
  Ranks, 344, 345
  Strength, 347
Navy, U. S. Dept. of:
  Expenditure, 729
  Secretaries, 393–96
Neap Tides, 499
Nebraska:
  General information, 262
  Accidental death rates, 118
  Agriculture: statistics, 726, 727
  Altitudes, 135
  Area: land, 96
  Births: number, 109
  Congress: members, 384, 387
  Death rates, 118
  Deaths: infants, 115
  Deaths: motor-vehicle, 119
  Deaths: number, 115
  Divorces: statistics, 106, 107

Nebraska—(cont.)
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Needles, Calif., 491
Negeb, 607
Negroes:
Dred Scott case, 699
Education, 131
Population, 93
School segregation banned, 148
Voting rights, 417
See also Nonwhite races; Slavery
Negroids, 436
Neil Award, 795
Nelson, Brit. Columbia, 491
Nelson, Gallery, 320
Nepal, 625–26
Diplomats: U. S., 339
Nephritis: Death rates, 117
Neptune (planet), 495, 498
Symbol, 496
Netherlands:
General information, 626–29
Agriculture: rating, 707, 708
Airlines: rating, 708
Birth rate, 111
Currency: par value, 734
Death rate, 116, 710
Diplomats: U. S., 339
ECA: allotments, 734
Floods, 692
Industry: production, 730
Industry: rating, 709
International Bank, 734
Life expectancy, 124
MSA: allotments, 734
Merchant fleet: rating, 709
NATO, 150
Navy: rating, 710
Trade, 709, 732, 733
United Nations, 743
Western European Union, 150
World War II, 144, 348
Netherlands Indies. *See* Indonesia
Networks: Radio & TV, 297
Neutrality Acts, 329, 332, 333
Neutron: Discovery, 435
Nevada:
General information, 262
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Needles, Calif., 491
Negeb, 607
Negroes:
Dred Scott case, 699
Education, 131
Population, 93
School segregation banned, 148
Voting rights, 417
See also Nonwhite races; Slavery
Negroids, 436
Neil Award, 795
Nelson, Brit. Columbia, 491
Nelson, Gallery, 320
Nepal, 625–26
Diplomats: U. S., 339
Nephritis: Death rates, 117
Neptune (planet), 495, 498
Symbol, 496
Netherlands:
General information, 626–29
Agriculture: rating, 707, 708
Airlines: rating, 708
Birth rate, 111
Currency: par value, 734
Death rate, 116, 710
Diplomats: U. S., 339
ECA: allotments, 734
Floods, 692
Industry: production, 730
Industry: rating, 709
International Bank, 734
Life expectancy, 124
MSA: allotments, 734
Merchant fleet: rating, 709
NATO, 150
Navy: rating, 710
Trade, 709, 732, 733
United Nations, 743
Western European Union, 150
World War II, 144, 348
Netherlands Indies. *See* Indonesia
Networks: Radio & TV, 297
Neutrality Acts, 329, 332, 333
Neutron: Discovery, 435
Nevada:
General information, 262
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
New Haven, Conn., 99, 253, 491
New Hebrides, 587
Area & population, 515, 577
Volcanoes, 676
New Jersey:
General information, 263
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Mortor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
New London, Tex., 693
New Mexico:
General information, 263
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Execution: method, 126
Families: number, 113
Government, 285
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86

Unemployment: compensation, 741
Voting: qualifications, 367
New Orleans, La.:
General information, 280
Battle of, 702
Climate, 44
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
New Rochelle, N. Y., 99
New Year, Jewish, 452
New Year's Day, 451, 454
New York (state):
General information, 263–64
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Government, 285
Highest, lowest points, 135
Historical Association, 321
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
New York, N. Y.:
General information, 263–64, 280–81
Bank mergers, 9, 10
Bridges, 689
Buildings: tallest, 696
Climate, 44
Congress of the Confederation, 420
Critics' awards, 466–68
Fire (1835), 693
Government, 286
Harbor, 137
Library, 684
Longitude & latitude, 491
Magnetic declination, 491
Map, 84
Museums, 317
National Conventions, 355
Newspapers: leading, 295
Planetarium, 500
Population: growth, 99
Population: world rank, 691
Snowfall, 680
Statue of Liberty, 406
Structures, 688, 696
Time of day, 491
U. N. headquarters, 745
World's Fair, 143
Zoos, 685
New Zealand:
General information, 548–49
Agriculture: rating, 707, 708
Birth rate, 111
Death rate, 116
Diplomats: U. S., 339
Employment: rating, 709
Geysers, 678
Life expectancy, 124
SEATO, 150
Telephones: rating, 709
Trade, 733
Treaty: U. S., Australia, 402–03
United Nations, 743
Volcanoes, 677
World War II, 348
Newark, Del., 253
Newark, N. J.:
General information, 281
Government, 286
Museum, 321
Newspapers: leading, 295
Population: growth, 99
Newfoundland, 534, 671
Newport, R. I., 267
Newspapers:
Advertising, 720
Firsts, 702, 703
Leading: U. S., 294–95
Number: by state, 296
Oldest newspaper: U. S., 253
Newsreel: First, 702
Newton, Mass., 99
Niacin: In food, 431
Niagara Falls, 672
Niagara Falls (town), N. Y., 99
Nicaea, Council of, 699
Nicaragua:
General information, 629–30
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 339
Holiday: national, 690
Trade: with U. S., 732, 733
United Nations, 743
U. S. intervention, 382
Volcanoes, 677
Nicholas II (Russia), 140
Nicknames:
Baseball clubs, 775
States, 251–71
Nicobar. *See* Andaman
Niger, 581
Area & population, 577
Nigeria, 525–26
Area & population, 515
Minerals: rating, 707
Night schools, 129
Nile, 674
Nineteenth Amendment, 417
Nirvana: Defined, 440
Nisei: Defined, 159
Nixon, Richard M., 381
Nobel Prizes, 455–59
For 1955, 15
Nogales, Ariz., 491
Nome, Alaska, 491
Nominations: Presidential, 355
Nonwhite races (U. S.):
Births, 110, 111
Deaths, 111
Life expectancy, 121–24
Population, 91, 93
See also Negroes
Norfolk, Va.:
General information, 281
Government, 286
Newspaper: leading, 295
Population: growth, 99
Norfolk Dam, 688
Norfolk Island, 548
Area & population, 515
Normandie (ship), 697
Norns (myth.), 203
Norris Dam, 688
Norris-LaGuardia Act, 331
Norris-Morin Resolution, 330
Norse mythology, 202-04
North America:
Area, 669
Dimensions, 669
Elevations, 669
Exploration, 667
Geographic center, 265
Map, 80–81
Population, 92, 669
Religions, 437
North Atlantic Treaty Organization:
Countries: map, 68–69
European army approved, 147
Germany admitted, 148
Member nations, 150
Ratification: U. S., 334
Treaty: signed, 147
Treaty: text, 401–02
North Borneo. *See* Borneo
North Canadian River, 136
North Carolina:
General information, 264
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 387
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
North Dakota:
General information, 264–65
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727

North Dakota—(cont.)
Education: statistics, 127, 130
Elections: statistics, 359–66
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
North Las Vegas, Nev., 262
North Little Rock, Ark., 252
North Platte, Nebr., 262, 491
North Platte River, 136
North Pole, 668
Flights over, 470, 471
North Sea, 671
Northern Ireland. *See* Ireland
Northern Lights, 497
Northern Rhodesia. *See* Rhodesia
Northwest Ordinance, 700
Northwest Territories (Can.), 534
Norway:
General information, 630–32
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 340
ECA: Allotments, 734
Employment: rating, 709
Industry: production, 730
Industry: rating, 708, 709
International Bank, 734
Labor: purchasing power, 713
Life expectancy, 124
MSA: allotments, 734
Merchant fleet: rating, 709
NATO, 150
Telephones: rating, 709
Trade: with U. S., 732, 733
United Nations, 743
World War II, 144, 348
Notre-Dame (Paris), 687
Nova Scotia, 534
Novelists: Pulitzer Prizes, 462
See also Literature
Nubian Desert, 673
Nuremberg laws, 142
Nuremberg trials, 145
Nuts:
Imports, 731
Income: marketing, 725
Nyasaland, 526
Area & population, 515
Trade with U. S., 733

—O—

Oak Park, Ill., 99
Oak Ridge, Tenn., 319
Oakland, Calif.:
General information, 281
Government, 286
Newspaper: leading, 295
Population: growth, 99
Oath:
Constitutional, 414
Freeman's, 367
Presidential, 412
Oats:
Prices: farm, 725
Production: world, 708
Ob River, 674
Observatories (astron.), 500
Ocean Island, 550
Oceania:
Area, 669
British Commonwealth, 545–50
Elevations, 669
Exploration, 668
French territories, 587
Map, 74–75
Population, 92, 669
Religions, 437
Oceans:
Currents, 33–34
Dimensions, 671
Octagon: Area, 427
Odd Fellows (assn.), 704
Office of Defense Mobilization, 389, 391
Officers: Armed forces, 344, 392
Ogden, Utah, 98, 268
Ohio:
General information, 265
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Tornado (1953), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Ohio River, 136, 692
Ohm's Law: Discovery, 435
Oil industry:
Arabia, 646
Exports, 731
First oil well, 702
Hours worked, 717
Imports, 731
Indonesia, 601
Iran, 603
Iraq, 604
Middle East: map, 76
Oklahoma, 265
Pipelines: traffic, 723
Production: U. S., 715
Production: world, 706, 707
Rumania, 644
Tidelands Oil Bill, 148, 336, 337
Wages, 717
Okhotsk Sea, 671
Okinawa, 145
Oklahoma:
General information, 265
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Oklahoma City, Okla., 265
General information, 281
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
Old-age insurance, 738–40
Old Faithful (geyser), 679
Old Testament: Characters, 192–95
Oleomargarine: Tax, 335
Olympia: Statue of Zeus, 668
Olympia, Wash., 270
Olympic Games, 786–91
1960 games: location, 791
Olympic National Park, 315
Omaha, Nebr.:
General information, 281–82
Government, 286
Newspaper: leading, 295
Population, 99
Oman and Masqat, 503
"One Horse Shay," 319
Ontario, Lake, 675
U. S.: water area, 137
Ontario (prov.), 534
"Open door" policy, 326
"Operation Big Switch," 148
Oppenheimer, J. Robert, 148
Ophthalmoscope, 434
Orange Bowl (football), 798
Orange Free State, 528
Orange River, 675
Oranges: Prices, 725
Oregon:
General information, 266
Accidental death rates, 118

Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Organizations, 703–04
How to form, 208
Jewish, 451
Sports, 762
Oriental Institute, 318
Orinoco, 674
Orkney Islands, 520
Orlando, Fla., 98, 255
Orthodox Churches, 437, 438, 700
Osaka, Japan, 612
Oscars. *See* Academy Awards
Oslo, Norway, 630
Ottawa, Ontario, 491, 532, 534
Outer Mongolia. *See* Mongolia
Owensboro, Ky., 257
Oxford Movement, 450
Ozone: Discovery, 435

— P —

Pacific Ocean:
Dimensions, 671
Discovery, 667
First flight over, 471
U. S.: coastline, 137
U. S.: water area, 137
Pacific States:
Economy: statistics, 727
Population: marital status, 104
Paducah, Ky., 257
Pago Pago, Amer. Samoa, 273
Pagodas: Famous, 687
Painted Desert, 673
Pakistan:
General information, 544–45
Agriculture: rating, 707, 708
Currency: par value, 734
Diplomats: U. S., 340
International Bank, 734
Map, 77
SEATO, 150
Trade, 733
United Nations, 742, 743
U. S. wheat grant, 337
Palestine, 742
See also Israel; Jordan
Palm Sunday, 451, 453
Palomar Observatory, 500
Pan-American Games, 858–59
Panamá:
General information, 632–33
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 340
Holiday: national, 690
Merchant fleet: rating, 709
Trade: with U. S., 732
United Nations, 743
U. S. intervention, 382
Panama Canal, 273, 329, 679
Map, 81
Panama Canal Zone. *See* Canal Zone
Panamá City, Panamá, 632
Pancake Tuesday, 451
Panmunjom, Korea, 148
Pantheon, 686
Papal States, 662–63
Paper currency: Portraits, 328
Paper industry:
Establishments, 722
Exports, 731
Hours worked, 717
Imports, 731
Prices, 723
Production, 715
Wages, 717
Papua, 547
Area & population, 515
Par values: Currency, 734
Parachutes: First jump, 469
Paraguay:
General information, 633–34
Currency: par value, 734
Diplomats: U. S., 340
Holiday: national, 690
United Nations, 743
Paraná, 674
Parapsychology: Defined, 159
Parcel Post, 350–51
Paris, France:
Bibliotheque Nationale, 683
Longitude & latitude, 490
Museums, 684, 685
Notre-Dame, 687
Population, 575
Time of day, 490
University of Paris, 683
World War II, 144, 145
Zoos, 685
Parity: Defined, 159
Parity prices: Farm, 725
Parkersburg, W. Va., 270
Parks:
City-owned parks, 275–84
National Park System, 314–16
State parks, 251–71
Parkways, National, 316
Parliament (England), 700
Parliamentary procedure, 208–15
Parochial schools, 132
Parsee: Defined, 429
Parthenon, 686
Pasadena, Calif., 99
Passaic, N. J., 99
Passengers. *See* Aviation; Railroads
Passover, 451, 453
Patagonia, 505
Patents: Procedure, 298
Paterson, N. J., 99, 263
Patients: Hospital, 120
Paul I (Greece), 593
Pavlov, Ivan, 435
Pawtucket, R. I., 99, 267
Pay: Armed forces, 344–47
See also Salaries; Wages
Payments: U. S.: balance of, 730
Payne-Aldrich Tariff, 329
Peace: Nobel Prizes, 455–56
Peaks. *See* Mountains
Peanuts: Prices, 725
Pearl Harbor, 144
Pedestrians: Deaths, 119
Peiping, China, 555
Peking, China. *See* Peiping
Peloponnesian War, 700
Pemba, 530
Area & population, 515
Pendulum clock: Invention, 434
Penicillin: Discovery, 435
Pennsylvania:
General information, 266
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 388
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Johnstown flood, 692
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Pennsylvania Academy of Fine Arts, 319
Pensions: Veterans, 336
Pentagon (math.): Area, 427
Pentecost, 452, 453
Hebrew Pentecost, 452
People's party, 357, 358
Peoria, Ill., 99, 256
Periodic table: Discovery, 435
Perón, Juan D., 504
Ousted, 14
Perpetual calendar, 493
Persia. *See* Iran
Persian empire, 680
Persian Wars, 700
Peru:
General information, 634–35
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 340
Holiday: national, 690
Minerals: rating, 707
Trade, 732, 733
United Nations, 743
Volcanoes, 677
Peru Current, 13
Pescadores, 18, 558

Petition: Right of, 415
Petroleum. *See* Oil
Petsamo, 574
Pharos: Alexandria, 668
Philadelphia, Pa., 266
General information, 282
Continental Congress, 420
Government, 286
Independence Hall, 688
Liberty Bell, 340
Longitude & latitude, 491
Magnetic declination, 491
Museums, 318–19
National Conventions, 355
Newspapers: leading, 295
Planetarium, 500
Population: growth, 99
Time of day, 491
Zoo, 685
Philippines, Republic of:
General information, 635–37
Agriculture: rating, 708
Aid: legislation, 335
Currency: par value, 734
Diplomats: U. S., 340
Earthquakes, 692
Employment: rating, 709
Independence: legislation, 331
Minerals: rating, 706
Trade, 733
Trade: rating, 709
Treaty: U. S., 403
Typhoons, 693
United Nations, 743
Volcanoes, 676
World War II, 144, 145
Phoenix, Ariz., 251
Area, 99
Climate, 44
Heard Museum, 320
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Population, 99
Time of day, 491
Phoenix Islands, 274
Phonograph:
Invention, 434
Statistics: U. S., 299
Photography:
Aerial: first, 469
Inventions, 434
Pulitzer Prizes, 461
Studios: number, 720
Photosphere, 496
Physics:
Discoveries, 434–35
Formulas, 427
Nobel Prizes, 456–59
Thermometer scales, 428
Pi (math.): Defined, 429
Pica: Defined, 429
Pierce, Franklin:
Biography, 373
Cabinet, 394
Election, 357
Family, 383
Pierre, S. Dak., 267, 491
Pig iron. *See* Iron
Pikes Peak, 134
Pilgrims: American, 259, 420, 700
Pilots: Airplane, 473
Pine Bluff, Ark., 252
Pines, Isle of, 587
Pinetree Line, 80
Pipe (meas.): Defined, 429
Pisa: Leaning tower, 686
Pistol shooting, 803, 863
Pitcairn island, 548
Pittsburgh, Pa.:
General information, 282
Building: tallest, 696
Carnegie Institute, 319
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Observatory, 500
Planetarium, 500
Population: growth, 99
Time of day, 491
"Pittsburgh of the South," 251
"Pittsburgh of the West," 253
Pittsfield, Mass., 99, 319
Pius XII, 662–63
Pizza: Defined, 159
Plague:
Black Death, 698
London, 700
Planetaria, 500
Planets, 498
As morning & evening stars, 492–94
Plants: Classification, 435
Plassey, Battle of, 701
Plato, 680
Platt National Park, 315
Platte River, 136
Pledge to Flag, 424
Plumbing: Establishments, 722
Plurality: Defined, 367
Pluto (planet), 495, 498
Symbol, 496
Plymouth, Mass., 420
Plymouth Rock, 259, 700
Pneumatic tire: Invention, 435
Pneumonia: Death rates, 117
Po River, 611
Pocatello, Idaho, 255
Picket billiards, 817, 850
Pocket veto: Defined, 338
Poetry: Pulitzer Prizes, 464
Point (meas.): Defined, 429
Point 4 Program, 147, 335
Point of Order, 214
Poisons: Death rates, 118
Poitiers, Battles of, 700, 701
Poland:
General information, 637–39
Agriculture: rating, 707, 708
Armed forces: rating, 710
Birth rate, 710
Diplomats: U. S., 340
Industry: rating, 709
Life expectancy, 124
Minerals: rating, 706, 707
Partitioning of, 701
Railways: rating, 709
United Nations, 743
World War II, 143, 348
Polar auroras, 497
Polar flights, 470, 471
Policemen: Number, 719
Polio: Salk vaccine, 17–18
Political changes since 1945, 149
Polk, James K.:
Biography, 372
Cabinet, 394
Election, 357
Family, 383
Minority President, 419
Poll tax, 367
Polo, 824–26
1955 champions, 870
Measurements, 814
Pompeii: Destruction, 676
Ponce, Puerto Rico, 272
Pontiac, Mich., 99
Pontiffs. *See* Popes
Pony Express, 701
Pool parlors: Number, 720
Popes, 448–49
Pius XII, 662
Popocatepetl, 677
Population:
U. S. (1610–1955), 90
U. S.: by age, 91, 93
U. S.: by race, 91, 93
U. S.: by sex, 91, 93
U. S.: cities (1920–50), 97–100
U. S.: density by year, 90
U. S.: density by state, 96
U. S.: farm, 725
U. S.: foreign-born, 94
U. S.: marital status, 104
U. S.: percent ever married, 108
U. S.: projections (1960–75), 90
U. S.: states (1790–1950), 96
U. S.: states (1954 est.), 251–71
U. S.: urban & rural, 92
U. S.: with territories, 100
U. S.: working, 101
World, 92, 669
World: cities, 691
World: countries, 690
World: high densities, 669
Populists: *See* People's party
Port Arthur, Kwantung, 148
Port Arthur, Ont., 491
Port Arthur, Tex., 99
Port Chicago, Calif., 693
Portal-to-portal pay: Defined, 159
Portland, Maine, 258
Area, 99
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population, 99
Time of day, 491
Portland, Oreg., 266
General information, 282
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
Portraits: Paper currency, 328
Portsmouth, N. H., 262, 701
Portsmouth, Va., 99, 269
Portugal:
General information, 639–43
Birth rate, 111
Death rate, 116
Diplomats: U. S., 340
ECA: allotments, 734
Life expectancy, 124
Map, 88
MSA: allotments, 734
NATO, 150
Overseas Territories, 641–43
Trade, 732
World War I, 349
Portuguese East Africa. *See* Mozambique
Portuguese Guinea. *See* Guinea
Portuguese India. *See* India
Portuguese West Africa. *See* Angola
Positron: Discovery, 435
Post Office Dept., U. S., 389, 392
Employees pay raise, 338
Postmasters General, 393–96
Postal communications:
Regulations, 350–53
UPU, 747
Potatoes:
Consumption, 714
Prices, 725
Production: U. S., 726
Production: world, 708
Potsdam Conference, 145, 400–01
Poughkeepsie Regatta, 800
Poultry:

Consumption, 714
Income: marketing, 725
Prices, 725
Pound (weight): Defined, 426
Power loom: Invention, 434
Prague, Czechoslovakia, 143, 562
Museum, 685
Preakness Stakes, 833, 857
Precipitation, 34–37
Presbyterian Churches, 439–40
Presidents:
Colleges, 300–14
Confederacy, 396
Continental Congresses, 421
France, 206
Presidents (U. S.):
Biographies, 368–80
Bricker Amendment, 337
Cabinets, 393–96
Elections (1789–1952), 356–66
Elections: procedure, 354, 416
Executive Office, 389, 391
Families, 383
First woman candidate, 703
Inauguration date, 354
List of, 381
Minority Presidents, 419
"Mother of Presidents," 269
Numbering of, 380
Oath, 412
Powers, 411–13
Qualifications, 412
Religions, 381
Salary, 382
Succession, 355, 418
Term: end of, 418
Terms: limit to, 418
Vacancy: filling, 412, 418
Veto power, 410
Presiding at meetings, 208–15
Press, Freedom of, 415, 699
Pressure group: Defined, 159
Prices:
Consumer, 712
Controls, 146, 148, 335, 337
Farm, 725
Foods, 725
Indexes, 723
Parity: farm, 725
Wartime, 712
Wholesale, 723
Prime Ministers:
British, 205
Canadian, 533
Prince Edward Island, 534
Prince of Wales (battleship), 144
Principe, 642
Printing:
Hours worked, 717
Inventions, 434
Production, 715
Wages, 717
See also Publishing
Prism: Volume, 427
Prisoners:
Code of conduct, 13
Federal, 126
Released by Red China, 19
Private schools. *See* Schools
Prizes. *See* Awards
Procedure: Parliamentary, 208–15
Production. *See* Agriculture; Industry; Manufacturing
Professional schools. *See* Schools
Professional workers, 101
Progressive party (1912) 358, 366
Progressive party (1924), 358, 366
Progressive party (1948), 364
Progressive party (1952), 365
Prohibition:
Established, 417
Kansas repeals, 257
Repealed, 418
States having, 261, 265
Volstead Act, 330
Prohibition party, 357–65
Pronunciations: Troublesome, 163–74
Prophets: Old Testament, 195
Prostitution: Arrests, 125
Protestant Churches, 437–41
Protestant Episcopal Church, 441
Bishops, 442–43
Proton: Discovery, 435
Providence, R. I., 266–67
General information, 282
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population: growth, 99
Time of day, 491
Provo, Utah, 268
Prussia: Kings, 207
Psychoanalysis: Discovery, 435
Psychodrama: Defined, 160
Psychosomatic: Defined, 160
Public debt. *See* Debt
Public schools, 127–33
Public utilities:
Construction, 716
Electrical output, 714
Employment, 719
Establishments, 715
Hours worked, 718
SEC, 332
Wages, 718
Public welfare: Employees, 719
Publishing:
Advertising, 720
Hours worked, 717
Magazines: leading, 297
Newspapers: by state, 296
Newspapers: leading, 294–95
Production, 715
Wages, 717
Pueblo, Colo., 99, 253
Puerto Rico:
General information, 272–73
Agriculture: rating, 708
Birth rate, 111
Congress: member, 388
Constitution, 336
Death rate, 116
Holidays, 454
Life expectancy, 124
National Convention delegates, 354
Puget Sound, 137
Pulitzer Prizes, 460–64
Pullman strike, 701
Pump, air: Invention, 434
Punic Wars, 701
Pupils. *See* Schools
Pure Food and Drug Act, 329
Purim, 453
Pygmies, 436
Pyramids:
Egypt, 668
Volume: formula for, 427
Pyrenees, 579

Q

Qatar, 504
Quadruplets: Number born, 111
Quakers, 441
Quantum theory, 435
Quarrying, 715, 718
See also Stone industry
Quebec (prov.), 534
Quebec, Que.:
Longitude & latitude, 491
Magnetic declination, 491
Population, 532
Time of day, 491
Queen Mary (ship), 697
Queens (boro.):
Area & population, 99
Borough President, 281
See also New York, N. Y.
Queensberry Rules, 792
Quemoy, 19
Quincy, Mass., 99
Quintal, 429
Quire: Defined, 429
Quisling: Origin of term, 630
Quiz show: First with panel, 702

R

R.C.A. Building, 696
Rabbinical organizations, 451
Rabies: Preventive, 435
Races (peoples), 436
Births: U. S., 110, 111
Deaths: U. S., 116, 121–22
Life expectancy, 121–24
Population: U. S., 91, 93
Racine, Wis., 99, 271
Racing:
Auto racing, 844–45
Harness racing, 840–41
Horse racing, 827–38, 857
Tracks: number, 720
Racism: Defined, 160
Racquets (game), 802–03, 863
Radar:
Defined, 160
Warning lines, 80
Radio industry:
Advertising, 720
Exports, 731
First panel quiz show, 702
Inventions, 434
Networks, 297
Operators, 299
Sales, 722
Sets: homes with, 299
Sets: in use, 711
Stations: by city, 275–84
Stations: U. S., 297
Radioactivity: Discovery, 435
Radios:
Number: by city, 275–84
Number: by continent, 299
Number: U. S., 299
Railroads:
Accidents: famous, 696
Cape-to-Cairo Railroad, 698
Carloadings, 718
Construction, 716
Countries: leading, 709
Deaths: accidental, 120
Domestic traffic, 723
First steam railroad, 703
Freight, 723
Hours worked: limit, 329
Legislation, 329, 330
Passengers, 723
Published rates: deviations, 329
RFC, 331
Rates: right to alter, 329
Social Security, 741
Transcontinental: first, 703
Rain, 34–35
Precipitation: U. S. cities, 42–44
Rain making, 37
Records: world, 679–80
St. Swithin's Day, 41
Rainier, Mt., 134

Raleigh, N. C., 264
Area, 99
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population, 99
Time of day, 491
Rangoon, Burma, 552
Ranks: Armed forces, 344, 345
Rapallo, Treaty of, 141
Rape: Arrests, 125
Rapid City, S. Dak., 267
Rasputin: Murdered, 701
Rationing, 144, 145
Rayon: Invention, 434
Reading, Pa., 99, 266
Real estate: Establishments, 715
Ream (meas.): Defined, 429
Reaper: Invention, 434
Recipe section, 45–58
Reciprocal Trade Agreements Acts, 332, 336, 337, 338
Reconstruction Finance Corporation, 331
Records:
Aviation, 472–73
Steamship, 697
See also Sports
Recreation. *See* Amusement
Rectangle: Area, 427
Red River, 136
Red Sea, 671
Reformation:
Events, 701
Germany, 587–88
Universities, 682
Refrigerators:
Exports, 731
In homes, 711, 714
Refugee Immigration Act, 337
Registered mail, 351
Reichstag building: Burned, 142
Reign of Terror (France), 699
Relative humidity: U. S. cities, 42–44
Relativity: Theories, 435
Relief: Number on (1935), 142
Religion:
Antipopes, 447
Archbishops of Canterbury, 450
Cardinals, 445–47
Churches: U. S., 437–41
England, 450
Freedom of, 415
Holidays, 451–53
Jewish organizations, 451
Memberships, 437–41
Methodist bishops, 443
Of U. S. Presidents, 381
Popes, 448–49
Protestant Episcopal bishops, 442–43
Roman Catholic hierarchy, 443–45
Renaissance, 701
Structures: famous, 687
Universities, 682
Reno, Nev., 262, 491
Rents: Price index, 712
Repair services, 720
Repeal of prohibition, 418
Representatives. *See* House
Republic: Oldest, smallest, 646
Republican party:
Congress, 384–88
Elections: Presidential, 357–66
Formation, 324
National Committee, 383
National Conventions, 354, 355
State voting longest for, 269
Repulse (battle cruiser), 144
Residence:
For divorce, 106
For voting, 367
Resources: World, 706–10
Restaurants, 722
Retail trade:
Chain stores, 722
Employment, 719
Establishments, 715, 722
Hours worked, 718
Sales, 722
Sales: by state, 727
Sales: leading outlets, 724
Wages, 718
Réunion, 583
Area & population, 577
Volcano, 676
Revenue:
Cities, 275–84
Government: U. S., 729
States, 251–71
Revere, Paul: Ride, 259
Reversing layer, 496
Revolutionary War, 347, 698
Revolver: Invention, 434
Rh factor: Defined, 160
Rhee, Syngman, 616
Rhine, 590
Rhode Island:
General information, 266–67
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 384, 388
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Rhodes: Colossus, 668
Rhodesia, Northern, 526
Area & population, 515
International Bank, 734
Minerals: rating, 706
Rhodesia, Southern, 527
Area & population, 515
International Bank, 734
Minerals: rating, 706
Trade: with U. S., 733
Riboflavin: In foods, 431
Rice:
Prices: farm, 725
Production: world, 708
Riches: World, 706–10
Richfield, Utah, 491
Richmond (boro.):
Area & population, 99
Borough President, 281
See also New York, N. Y.
Richmond, Calif., 99
Richmond, Va.:
General information, 282
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Museum of Fine Arts, 321
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
Rifles:
Automatic: invention, 434
Rifle shooting (sport), 863
Riga, Latvia, 617
Riga, Treaty of, 141
Ringling Museum, 321
Rio de Janeiro, Brazil, 511
Rio Grande, 137
Flood (1954), 692
Rivers:
Of Underworld, 201
U. S., 136–37
World, 674–75
Roads:
Highest auto road, 253
Mileages, 288–89
Roanoke, Va., 99, 269
Robbery: Arrests, 125
Robot-bombing of England, 145
Rochester, Minn., 260
Rochester, N. Y.:
General information, 283
Government, 286
Newspapers: leading, 295
Population: growth, 99
Rock Hill, S. C., 267
Rock Springs, Wyo., 271
Rockefeller Center, 688
Rockefeller Foundation, 704
Rocket engine flight: First, 471
Rockford, Ill., 99, 256
Rocky Mountain National Park, 315
Roehm, Ernst: Purge, 142
Roller skating, 862
Roman Catholic Church:
Antipopes, 447
Archbishops, 443–44
Bishops, 444–45
College of Cardinals, 445–47
Counter Reformation, 699
England, 450
France, 578
Inquisition, 700
Italy, 610
Membership, 437, 438
Pius XII, 662
Popes, 448–49
Schism with Eastern Church, 700
Vatican City State, 662–63
Roman empire, 701, 860
Christianity, 698
Roman mythology, 196–202
Roman numerals, 428
Romanesque architecture, 686–87
Rome, Italy:
Founded, 701
Libraries, 683
Longitude & latitude, 490
Population, 608
Structures, 686
Time of day, 490
World War II, 145
Roosevelt, Eleanor, 383
Roosevelt, Franklin D.:
Biography, 379
"Arsenal of Democracy," 144
Assassination attempt, 340
Bank holiday, 142

Cabinet, 396
Elections, 360–63
Embargoes gold, 142
Family, 383
First "Fireside Chat," 142
Good-neighbor policy, 327
Nominations, 355
"One third of the nation," 143
"Quarantine" of aggressors, 143
Supreme Court plan, 143
Vice Presidential candidate, 358
Roosevelt, Theodore:
Biography, 376–77
Assassination attempt, 340
Cabinet, 395
Elections, 358
Family, 383
Hall of Fame, 468
Nomination, 355
Roosevelt Museum, 317
Roosevelt Dam, 688
Roque, 860
Rose Bowl (football), 797
Rosenberg, Julius & Ethel, 147, 148
Roses, Wars of the, 702
Rosetta Stone, 684
Rosh Hashana, 452, 453
Rosicrucian Museum, 321
Ross, Betsy, 422
Roswell, N. Mex., 263
Rotary International, 704
Rotterdam, Netherlands, 626
Zoo, 686
Rowing, 800–01
1955 champions, 853, 856, 858
College, 800–01, 856
Olympic Games, 791
Pan-American Games, 858
Royal Canadian Mounted Police, 533
Royal Gorge, 253
Ruanda-Urundi, 510
Rubber industry:
Hours worked, 717
Imports, 731
Manufactures: exports, 731
Price index, 723
Production: U. S., 715
Production: world, 708
Vulcanizing: invention, 434
Wages, 717
Rubinstein, Serge: Killed, 9
Ruhr, 591
Occupied (1923), 141
Rulers:
England, 204–05
France, 206
Israel & Judah, 194–95
Prussia & Germany, 207
Russia, 207
Rumania:
General information, 643–45
Birth rate, 111, 710
Death rate, 116
Diplomats: U. S., 340
Minerals: rating, 707
World War I, 349
World War II, 348
Rural population, 92
Rurutu, 587
Rushmore, Mt.: Carvings, 267
Russell Sage Foundation, 704
Russia. *See* Union of S.S.R.
Russian Orthodox Church, 438
Russian Revolution, 140
Russian roulette: Defined, 160
Russo-Japanese War, 701
Russo-Turkish War, 701
Ruth, Babe, 773
Rutland, Vt., 269
Ryder Cup, 781
Rye: Farm prices, 725
Ryukyu Islands, 275
Volcanoes, 676

S

SEATO. *See* Southeast Asia Treaty Organizaton
Saar, 592
Plebiscite, 142
Sacramento, Calif., 252
Area, 99
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population, 99
Time of day, 491
Saginaw, Mich., 99, 260
Sahara Desert, 673
St. Albans, Vt., 269
St. Augustine, Fla., 255
St. Bartholomew massacre, 701
St. Clair, Lake, 137
St. Cloud, Minn., 260
St. Helena, 527
Area & population, 515
St. John, New Brunswick, 491
St. Joseph, Mo., 99, 261
St. Lawrence River, 674
St. Lawrence Seaway, 83, 337
St. Louis, Mo., 261
General information, 283
City Art Museum, 321
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
National Conventions, 355
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
St. Mihiel, Battle of, 702
St. Patrick's Day, 451
St. Paul, Minn.:
General information, 283
Government, 286
Newspapers: leading, 295
Population: growth, 99
St. Peter's (Vatican), 687
St. Petersburg, Fla., 99, 255
St. Pierre and Miquelon, 585
Area & population, 577
St. Swithin's Day, 41
St. Valentine's Day, 451
St. Valentine's Day massacre, 701
Saipan, 275
Sakhalin, 671
Salaries:
City governments, 286
Federal government, 382
State governments, 285
Teachers, 127, 131
Salem, Mass., 702
Salem, Oreg., 266
Sales:
Chain stores, 724
Retail, 722, 724
Workers: number, 101
Sales tax: Autos, 287
Salina, Kans., 257
Salisbury, Md., 259
Salk vaccine, 17–18
Salmon, Idaho, 491
Salmon River, 137
Salt Lake City, Utah, 268
Area, 99
Climate, 44
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Population, 99
Time of day, 491
Salvador. *See* El Salvador
Salvation Army, 441
Samoa, American, 273
Samoa, Western, 515, 550
San Angelo, Tex., 99
San Antonio, Texas:
General information, 283
Government, 286
Longitude & latitude 491
Magnetic declination, 491
Newspapers: leading, 295
Population: growth, 99
Time of day, 491
San Bernardino, Calif., 99
San Diego, Calif.:
General information, 283
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Museums, 321
Newspapers, leading, 295
Population: growth, 99
Time of day, 491
San Domingo. *See* Dominican Republic
San Francisco, Calif., 252
General information, 283–84
Bridges, 689
Climate, 44
Earthquake, 692
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Museums, 319, 321
National Convention, 355
Newspapers: leading, 295
Planetarium, 500
Population, 99
Time of day, 491
U. N. parley, 145
San Jacinto, Battle of, 701
San Jose, Calif., 99, 321
San Juan, Puerto Rico, 272
San Juan Hill, Charge of, 701
San Marino, Calif., 320
San Marino (republic), 646
San Pedro, Calif., 252
Sandwich Islands, 272
Sanitation: Employees, 719
Santa Anita Derby, 833, 857
Santa Anita Handicap, 833, 857
Santa Claus: Name origin, 453
Santa Cruz Islands, 676
Volcano, 676
Santa Fe, N. Mex., 263, 320, 491
Santa Monica, Calif., 99
Santiago (Chile), 553
São Paulo, Brazil, 511
São, Tomé, 642
Area & population, 641
Sarasota, Fla., 321
Saratoga, Battle, of, 698
Sarawak, 538
Agriculture: rating, 708
Area & population, 515
Sardinia, 611
Saskatchewan, 534
Saturn (planet), 493, 498
Symbol, 496
Saudi Arabia:
General information, 646–47
Area & population, 503
Diplomats: U. S., 340
Minerals: rating, 707
Trade, 732
United Nations, 743
Sault Ste. Marie, Mich., 491
Sault Ste. Marie Canals, 260, 679
Savannah, Ga., 99, 255, 491
Savings bank: First, 703
Savonarola, 701
Saxons, 514
Scales: Thermometer, 428
Scarlet fever: Death rate, 117

Scharnhorst (battleship), 145
Schenectady, N. Y., 99
Schick test: Discovery, 435
Schleier Gallery, 320
Schools:
  Attendance laws, 130
  Employment, 719
  Federal aid, 128
  Negroes, 131
  Private schools, 129, 132
  Public schools, 128, 129, 132
  Vocational schools, 129
  See also Colleges; Education
Schuman Plan, 147
Science:
  Calories, 431
  Chemical elements, 432–33
  Discoveries, 434–35
  Inventions, 435
  Measures, 425–30
  Museums: U. S., 317–21
  Museums: world, 684–85
  Races of mankind, 436
  UNESCO, 747
  Vitamins, 431
  Weights, 425–30
Science fiction: Defined, 161
Scopes Evolution Trial, 701
Score (meas.): Defined, 429
Scotland:
  Area & population, 516
  Life expectancy, 124
  Universities, 682
  See also Great Britain
Scott, Dred, 699
Scranton, Pa., 99, 266, 491
Scratch test: Defined, 161
Screw propeller: Invention, 434
Sea mile: Defined, 429
Seas: Dimensions, 671
Seasons: Change, 497–98
Seattle, Wash., 270
  General information, 284
  Climate, 44
  Government, 286
  Longitude & latitude, 491
  Magnetic declination, 491
  Newspaper: leading, 295
  Population: growth, 100
  Time of day, 491
Secession:
  Alabama, 251
  Arkansas, 252
  Florida, 254
  Georgia, 255
  Louisiana, 258
  Mississippi, 260
  North Carolina, 264
  South Carolina, 267
  Tennessee, 268
  Texas, 268
  Virginia, 269
Second International, 700
Secondary schools. *See* Schools
Secondhand stores: Number, 722
Secretaries-General: U. N., 744
Secretin: Isolation, 735
Securities and Exchange Commission, 332, 391, 392
Security Council. *See* United Nations
Seeing Eye Training School, 263
Segregation: Banned in schools, 148
Selective Service:
  Act: legislation, 333, 334, 335, 336, 338
  Act: violators, 126
  Classifications, 343
  Registration: first, 144
Self-employed: Number, 101
Senate (U. S.):
  Committees, 385
  Composition, 409
  Crime investigation, 147
  Election to, 417
  First president pro tempore, 703
  First woman elected to, 703
  Impeachments, 409
  Members, 384–85
  Qualifications, 409
  Salaries, 382
  Stock market inquiry, 10
  Terms, 409
  Terms: end of, 418
  Treaty of Versailles, 141
  Vice President elected by, 416
Senegal, 581
  Area & population, 577
Seoul, Korea, 147, 615–16
September Massacres, 699
Sequoia National Park, 315
Serbia, 349
Serfdom: Russia, 659
Seven Falls, 672
Seven Weeks' War, 506
Seven Wonders, 668
Seven Years' War, 701
Seventeenth Amendment, 417
Seventh Day Adventists, 441
Seward, William H., 340, 394
Seward, Alaska, 271
"Seward's Folly," 271
Sewers: Construction, 716
Sewing machine: Invention, 434
Sex offenses: Arrests, 125
Seychelles, 527
  Area & population, 515
Seymour Planetarium, 500
Shabuoth, 452, 453
Shanghai, China:
  Japanese invasion, 141
  Longitude & latitude, 490
  Population, 555
  Time of day, 490
Shannon River, 606
Shasta, Mt., 134, 670
Shays' Rebellion, 701
Sheep:
  On farms, 726
  Production: world, 708
  Sheffield, Eng., 514
Shemini Atsereth, 453
Shenandoah (dirigible), 695
Shenandoah National Park, 315
Sheridan Wyo., 271
Sherman's March, 698
Shetland Islands, 667
Shintoists: Number, 437
Ships:
  Atlantic passages, 697
  U. S. Navy, 347
  Wrecks: famous, 694
Shock therapy: Defined, 161
Shoes:
  Repair shops: number, 720
  Sales, 722
  Shine parlors: number, 720
  Stores: leading, 724
Shooting:
  Galleries: number, 720
  Rifle & pistol, 858, 863
Shooting stars, 500
Shoreline: By state, 137
Shreveport, La., 100, 258, 295, 491
Shrove Tuesday, 451, 453
Si Kiang, 674
Siam. *See* Thailand
Sicily:
  Earthquakes (1908), 692
  Volcano, 676
Sidereal time, 476, 499
Sierra Leone, 527
  Area & population, 515
  Discovered, 667
Silk screen process, 161
Silver: Production, 707
Silver City, N. Mex., 491
Simhath Torah, 453
Singapore:
  General information, 540–41
  Area & population, 515
  Longitude & latitude, 490
  Time of day, 490
  World War II, 144
Singer Building, 696
Single persons: Percent of population, 104
Sinkiang, 558
Sioux City, Iowa, 100, 257, 491
Sioux Falls, S. Dak., 100, 267
Sistine Chapel, 687
Sit-down strikes, 143
Sitka, Alaska, 491
Sixteenth Amendment, 417
Skagarrak, 566
Skating:
  Ice skating, 810–11, 850
  Rinks: number, 720
  Roller skating, 862
Skeet shooting, 864
Skiing, 808, 853, 859
  Highest artificial jump, 260
Skyscraper: First, 703
Slavery:
  American Colonies, 701
  British Empire, 701
  Compromise of 1850, 698–99
  Dred Scott case, 699
  Emancipation Proclamation, 698
  First state to forbid, 269
  Kansas-Nebraska Act, 700
  Missouri Compromise, 700
  Northwest Ordinance, 700
  Prohibited, 416
Sleet, 35
Sloan Foundation, Inc., 704
Small Business Administration, 337, 391, 392
Smith, Alfred E., 335, 359
Smith Act, 333
Smithsonian Institution, 318
Smog, 37
Snake River, 137
Snollygoster: Defined, 161
Snow, 35
  Snowfall: U. S. cities, 42–44
  World records, 680
Snyder-Gray case, 701
Soap opera: Defined, 161
Soccer, 812, 859, 864
Social Security:
  Legislation, 332, 335, 336, 337
  Program, 738–41
Socialist Labor party, 359–65
Socialist party, 358–65
Socialized medicine: Defined, 161
Societies, 703–04
  Sports, 762
Society Islands, 587
Socrates, 680
Soda: Solvay process, 435
Sofia, Bulgaria, 550
Softball, 781
Soil Conservation Act, 332, 333
Solar system: Heliocentricity, 435
Solar time, 476, 499
Solomon Islands, 550
  Area & population, 515
Solstices, 497
Solvay process, 435
Somalia, 611–12
Somaliland, British, 527–28
  Area & population, 515
Somaliland, French, 581
  Area & population, 577

Somaliland, Italian. *See* Somalia
Somerville, Mass., 100
Somme, Battles of, 702
Sonar: Defined, 161
Songs: State, 251–71
"Sooners": Defined, 265
Sorbonne, 682
Sorghum grain: Prices, 725
Sorority: First, 703
Sound:
  First flight faster than, 471
  Speed, 427
Sound picture: First, 434
South Africa, Union of:
  General information, 528–29
  Agriculture: rating, 708
  Area & population, 515
  Birth rate, 111, 710
  Currency: par value, 734
  Death rate, 116, 710
  Diplomats, U. S., 340
  International Bank, 734
  Life expectancy, 124
  Minerals: rating, 706
  Trade, 733
  United Nations, 743
  World War II, 348
South America:
  Area, 699
  Dimensions, 699
  Elevations, 699
  Exploration, 668
  Map, 78
  Population, 669
  Religions, 437
South Atlantic States:
  Economy: statistics, 727
  Population: marital status, 104
South Bend, Ind., 100, 256, 295
South Carolina:
  General information, 267
  Accidental death rates, 118
  Agriculture: statistics, 726, 727
  Altitudes, 135
  Area: land, 96
  Births: number, 109
  Congress: members, 384, 388
  Constitution: ratified, 407
  Death rates, 118
  Deaths: infants, 115
  Deaths: motor-vehicle, 119
  Deaths: number, 115
  Divorces: statistics, 106, 107
  Economy: statistics, 726, 727
  Education: Negroes, 131
  Education: statistics, 127, 130
  Elections: statistics, 359–66
  Executions: method, 126
  Families: number, 113
  Government, 285
  Highest, lowest points, 135
  Holidays, 454
  Hospitals: number, 120
  Map, 83
  Marriages: statistics, 105
  Motor vehicles: deaths caused by, 119
  Motor vehicles: laws, 287
  Newspapers: number, 296
  Population: density, 96
  Population: growth, 96
  Population: marital status, 104
  Shore line, 137
  Time zone, 86
  Unemployment compensation, 741
  Voting: qualifications, 367
South China Sea, 671
South Dakota:
  General information, 267
  Accidental death rates, 118
  Agriculture: statistics, 726, 727
  Altitudes, 135
  Area: land, 96
  Births: number, 109
  Congress: members, 384, 388
  Death rates, 118
  Deaths: infants, 115
  Deaths: motor-vehicle, 119
  Deaths: number, 115
  Divorces: statistics, 106, 107
  Economy: statistics, 726, 727
  Education: statistics, 127, 130
  Elections: statistics, 359–66
  Executions: method, 126
  Families: number, 113
  Government, 285
  Highest, lowest points, 135
  Holidays, 454
  Hospitals: number, 120
  Map, 82
  Marriages: statistics, 105
  Motor vehicles: deaths caused by, 119
  Motor vehicles: laws, 287
  Newspapers: number, 296
  Population: density, 96
  Population: growth, 96
  Population: marital status, 104
  Time zone, 86
  Unemployment: compensation, 741
  Voting: qualifications, 367
South Gate, Calif., 100
South Platte River, 137
South Pole, 668
  First flight over, 471
South Portland, Maine, 258
South-West Africa, 529–30
  Area & population, 515
Southampton (isl.), 671
Southeast Asia Treaty Organization, 148, 150
  Organized, 19
  U. S. Senate ratifies pact, 9
Southern Lights, 491
Southwest Museum, 321
Soybeans:
  Exports, 731
  Prices, 725
Spain:
  General information, 647–49
  Agriculture: rating, 707, 708
  Aid: legislation, 335, 336
  Armed forces: rating, 710
  Birth rate, 111
  Civil war, 143
  Death rate, 116, 710
  Diplomats: U. S., 340
  Franco: recognized by U. S., 143
  Inquisition, 700
  Life expectancy, 124
  Map, 88
  Minerals: rating, 706
  Navy: rating, 710
  Structures, 687
  Trade, 732
Span (meas.): Defined, 429
Spanish-American War:
  Casualties, 347
  Events, 701
Spanish Armada, 701
Spanish Guinea. *See* Guinea
Spanish Morocco. *See* Morocco
Sparks, Nev., 262
Spartanburg, S. C., 267
Speakers of House:
  List, 398
  Salary, 334, 338, 382
Special delivery mail, 351
Spectrum analysis, 435
Speech: Freedom of, 415
Speed:
  Falling body, 427
  Light, 499
  Light: discovery, 435
  Records: aviation, 472, 473
  Records: steamships, 697
  Sound, 427
  Speed limits: by state, 287
Speed skating, 811
Spending. *See* Expenditure
Sphere: Volume, 427
Sphinx, 686
  Riddle of, 201
Spinning: Inventions, 434
Spirit of St. Louis (plane), 318
Spiritualists, 441
Spitsbergen, 632
Spokane, Wash.:
  Area, 100
  Longitude & latitude, 491
  Magnetic declination, 491
  Newspaper: leading, 295
  Population, 100
  Time of day, 491
Spooner Bill, 329
Sports, 762–870
  1955 champions & records, 846–70
  Measurements, 814
  Olympic Games, 786–91
  Organizations, 762
  Pan-American Games, 858–59
  Sullivan Awards, 791
  See also individual sports
Spring (1956), 498
Springfield, Ill., 100, 256, 491
Springfield, Mass., 100, 259, 491, 500
Springfield, Mo., 100, 261, 491
Springfield, Ohio, 100
Squalus (submarine), 694
Square: Area, 427
"Square Deal," 326
Squares and square roots, 430
Squash racquets, 802, 850
Squash tennis, 803, 863
Stadiums: Baseball, 775
Stalin, Joseph, 657
  Death, 148, 658
Stalingrad, U.S.S.R., 145
Stamford, Conn., 100, 253
Stamp Act, 701
Stamps: First issued, 702
Standard time, 476
Stanley Cup, 804, 846
"Star-Spangled Banner," 421
Stars:
  Brightest, 495
  Morning & evening (1956), 492–94
  "Twinkling": cause, 499
State, U. S. Dept. of, 389, 391
  Education: Funds, 128
  Secretaries, 393–96
States (U. S.), 251–71
  Maps, 82–86
  New: procedure, 413
  Only one split, 260
  Only one that many subdivide, 268
  Population (1790–1950), 96
  Population: densities, 96
  Thirteen original, 407
  See also individual states
States' Rights Democratic party, 364
Stations: Radio & TV, 297, 298
Statue of Liberty, 406
Statute mile: Defined, 425
Steam engine: Invention, 434
Steamboat: Invention, 434
Steamship lines: Recipes, 45–48

Steamships: Records, 697
Steel industry:
Exports, 731
Hours worked, 717
Imports, 731
Production: U. S., 717
Production: world, 709
Truman seizure, 147
Wages, 717
Stere: Defined, 425
Stevenson, Adlai E.:
Candidate for President, 365
Nomination, 355
Stimson Doctrine, 141
Stock market:
Crash (1929), 141
Federal Securities Act, 331
SEC, 332
Senate inquiry, 10
Stockholm, Sweden, 649
Library, 683
Museum, 685
Zoo, 686
Stockton, Calif., 100
Stone (meas.): Defined, 429
Stone industry:
Hours worked, 717
Production, 715
Wages, 717
Stores. *See* Retail
Storms, 24–30
Stratosphere, 32
First flight, 471
Strawhat circuit: Defined, 162
Streptomycin, 162
Strikes (labor):
Causes, 721
First in U. S., 703
Number, 721
Sit-down strikes, 143
Terminated in 1954, 718
Stromboli, 676
Structures: famous, 686–88
Students. *See* Colleges; Schools
Submarines:
Atomic, 9, 147, 148
First use in warfare, 267
U. S., 347
Suburban Handicap, 834, 857
Subway: First, 703
Succession: Presidential, 334, 355
Sudan, Anglo-Egyptian, 571
Agriculture: rating, 707
Area & population, 515
Sudan, French, 581
Area & population, 577
Suez Canal, 679
Sugar Bowl (football), 798
Sugar industry:
Consumption, 714
Imports, 731
Production: world, 708
Sukkoth, 452, 453
Sulfa drugs, 162
Discovery, 435
Sullivan Award, 791
Sumatra, 600–01
Area, 671
Volcanoes, 677
Summer (1956), 498
Summit conference (1955), 16–17
Sun, 495–96, 498
Eclipses (1956), 499
Rise & set (1956), 478–89
Sun-spots, 496, 497
Symbol, 496
Zodiac, 496
Sunshine: U. S.: cities, 42–44
Superhighway: Defined, 162
Superior, Lake, 675
U. S.: water area, 137
Supersonic: Defined, 162
Supersonic flight: First, 471
Supremacy, Act of, 450
Supreme Court (U. S.):
Desegregation, 12
"Dred Scott case," 699
First law found unconstitutional, 702
Judiciary Act, 332
Justices: list, 397
Powers, 413
Roosevelt plan, 143
Salaries, 338, 382
Segregation: banned in schools, 148
Sit-down strikes, 143
Social Security Act, 142
Truman's steel industry seizure, 147
Wagner-Connery Act, 142
Supreme Courts: States, 285
Surgery: First antiseptic, 435
Suribachi, Mt., 145, 676
Surinam, 628–29
Minerals: rating, 706
Surnames: American, 59–65
Surrenders. *See* World War II under individual countries
Surveying: Measures, 429
Survivors' insurance, 738–40
Suspicion: Arrests for, 125
Susquehanna River, 137
Sutter's Mill, 699
Swaziland, 523
Area & population, 515
Sweden:
General information, 649–50
Agriculture: rating, 707
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 340
ECA: allotments, 734
Industry: production, 730
Industry: rating, 708, 709
Life expectancy, 124
MSA: allotments, 734
Merchant fleet: rating, 709
Minerals: rating, 706
Navy: rating, 710
Telephones: rating, 709
Trade, 732, 733
United Nations, 743
Sweet potatoes:
Consumption, 714
Prices, 725
Swimming, 822–23
1955 champions, 808, 853, 855, 858
College, 822–23, 855
Olympic Games, 789–91
Pan-American Games, 858
Pools: number, 720
Swine: On farms, 726
Switzerland:
General information, 651–52
Birth rate, 111
Death rate, 116
Diplomats: U. S., 340
Labor: purchasing power, 713
Life expectancy, 124
Map, 89
Telephones: rating, 709
Trade, 732, 733
Sydney, Australia, 545
Synodic month, 499
Syphillis:
Death rates, 117
Wasserman test, 435
Syracuse, N. Y., 264
General information, 284
Government, 286
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population: growth, 100
Time of day, 491
Syria:
General information, 652–53
Currency: par value, 734
Diplomats: U. S., 340
United Nations, 743

— T —

Tabernacles, Feast of, 452
Table tennis, 821, 859
Tabloid newspaper: First, 703
Tachen Islands, 18
Tacoma, Wash., 270
Taft, William Howard:
Biography, 377
Cabinet, 395
Election, 358
Family, 383
Nomination, 355
Taft-Hartley Act, 334, 338
Tahiti, 587
Taiwan. *See* Formosa
Taj Mahal, 687
Tampa, Fla., 255
Area, 100
Longitude & latitude, 491
Magnetic declination, 491
Newspaper: leading, 295
Population, 100
Time of day, 491
Tanganyika Territory, 524
Area & population, 515
Volcano, 676
Tangier, 624–25
Tank, military: Invention, 434
Tannenberg, Battle of, 702
Taoists: Number, 437
Tariffs:
Fordney-McCumber, 330
Howley-Smoot, 331
Payne-Aldrich, 329
Tariff Commission, 391, 392
Trade Agreements Act, 332
Underwood-Simmons, 329
Tasmania, 671
Tate Gallery, 684
Taxes:
City tax rates, 275–84
Corporation taxes, 338
Excess-profits, 337
Excise taxes, 335, 337, 338
Gasoline taxes, 287
Poll taxes, 367
Sales tax: autos, 287
See also Income tax
Taxidermists: Number, 720
Taylor, Zachary:
Biography, 372
Cabinet, 394
Election, 357
Family, 383
Minority President, 419
Teachers. *See* Schools
Technical workers, 101
Teheran Conference, 145, 399
Telegraph industry:
Construction, 716
Hours worked, 718
Invention of telegraph, 435
Mann-Elkins Act, 329
Wages, 718
Telephone industry:
Construction, 716
Hours worked, 718
ICC, 329
Mann-Elkins Act, 329
Wages, 718
Telephones:
Countries: leading, 709
Families with: by state, 72

In use, 711
Invention, 435
Telescopes:
Astronomical, 500
Invention, 435
Television:
Advertising, 720
Exports, 731
First commercial broadcast, 435
First fight on, 794
Homes with, 711
Invention, 435
Sets, 298
Sets: by city, 275–84
Stations, 297, 298
Stations: by city, 275–84
Statistics: by year, 298
Temperature, 36, 42–44, 428
Tennessee:
General information, 268
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Evolution trial, 701
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Tornado (1925), 693
Unemployment: compensation, 741
Voting: qualifications, 367
Tennessee River, 137
Tennessee Valley Authority, 268, 331, 391, 392
Tennis, 782–85
1955 Champions, 853, 856, 858, 870
British champions, 785
College tennis, 870
Court tennis, 803, 863
Davis Cup, 782
History, 782
Lawn tennis, 782–85
Measurements, 814
Pan-American Games, 858
Professional tennis, 791
Squash tennis, 803, 863
Table tennis, 821, 859
U. S. champions, 783, 870
Wightman Cup, 782
Wimbledon champions, 870
Terre Haute, Ind., 100
Territorial expansion: U. S., 100
Texas:
General information, 268
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Hurricane (1900), 693
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Tornadoes, 693
Unemployment: compensation, 741
Voting: qualifications, 367
War of Independence, 701
Texas City, Tex., 694
Textbooks: Free to pupils, 128
Textile industry:
Exports, 731
Hours worked, 717
Imports, 731
Prices, 723
Production, 715
Wages, 717
Thailand:
General information, 653–54
Agriculture: rating, 708
Birth rate, 710
Currency: par value, 734
Diplomats: U. S., 340
International Bank, 734
Life expectancy, 124
Minerals: rating, 707
SEATO, 150
Tidal wave, 692
Trade, 733
United Nations, 743
Thanksgiving Day, 452, 453, 454
Thaw-White case, 701
Theater:
Longest Broadway runs, 704
N. Y. Critics' awards, 467–68
Pulitzer Prizes, 462–63
Theaters: number, 720
Thefts: Number & arrests, 125
Theories: Scientific, 435
Thermometer:
Invention, 435
Scales, 428
Thermopylae, Battle of, 700
Thiamine: In foods, 431
Third International, 145, 700
Thirteenth Amendment, 416
Thirty Years' War, 701
Thomas, Norman, 359–64
Thunder: Cause, 37
Thunderstorms, 35
Tiberias, Sea of, 608
Tibet, 558–59
Tidal waves, 30
Tidelands Oil Bill, 336, 337
Tides, 499
Tidal shoreline: U. S., 137
Tidal waves, 692
Tientsin (China), 555
Tierra del Fuego, 505
Tigris, 675
Tilden, Samuel J., 355, 357
Time:
Cities: foreign, 490
Cities: U. S. & Canada, 491
Kinds, 476
Zones, 476
Zones: map, 86
Timor, Portuguese, 643
Area & population, 641
Tin industry:
Imports, 731
Production, 707
Tires:
Pneumatic: invention, 435
Rationing, 144
Titanic (ship): Sinking, 694
Titicaca, Lake, 675
Tito, Marshal, 665
Tobacco industry:
Consumer spending, 712
Establishments, 722
Exports, 731
Hours worked, 717
Imports, 731
Income: marketing, 725
Prices: index, 723
Production: U. S., 715, 726
Wages, 717
Tobago. *See* Trinidad
Togo (French), 583
Area & population, 577
Togoland, 515
Toilets: In homes, 714
Tokyo, Japan, 612
Libraries, 683
Longitude & latitude, 490
Museum, 684
Population: world rank, 691
Time of day, 490
World War II, 144
Toledo, Ohio:
General information, 284
Government, 285
Newspaper: leading, 295
Population: growth, 100
Tonga, 548
Area & population, 515
Tongking, 586
Topeka, Kans., 257
Tornadoes, 24–26
Famous, 693
Toronto, Ont., 491, 532, 534
Library, 684
Toscanini, Arturo: Retires, 148
Tourist camps: Number, 720
Tours, Battle of, 701
Town: Oldest in U. S., 255
See also Cities
Township (meas.): Defined, 429
Track and Field, 818–21
1955 champion & records, 851–52, 853, 856, 858–59
A.A.U., 851
Boston Marathon, 820
College, 851–52
Mile runs, 817, 821
Olympic Games, 786–89
Pan-American Games, 858
Walking, 845
Tractors:
Exports, 731
Invention, 435
Trade:
Agreements, 733
Agreements: legislation, 332

Trade—(cont.)
Countries: by year, 732–33
Countries: leading, 709
FTC, 329, 390, 392
ITO, 747
Legislation, 329, 336, 337
U. S.: foreign, 731, 732–33
Trade-marks: Procedure, 298
Trade unions. *See* Unions
Trafalgar, Battle of, 700
Trains. *See* Railroads
Transatlantic flights, 469, 470, 471
Transbay Bridge, 689
Transformer: Invention, 435
Transistor: Defined, 162
Trans-Jordan. *See* Jordan
Transportation industry:
Consumer spending, 712
Death rates, 120
Employment, 719
Equipment: production, 715
Establishments, 715
Hours worked, 717
Passenger traffic, 723
Price index, 712
Wages, 717
See also Railroads
Transvaal, 528
Trapezoid: Area, 427
Trapshooting, 870
Travel: Consumer spending, 712
Travers Stakes, 834–35, 857
Treason: Defined, 413
Treasury, U. S. Dept. of, 389, 392
Education: funds, 128
Secretaries, 393–96
Treaties:
Hay-Bunau-Varilla, 329
Hay-Pauncefote, 329
Japanese, 336, 403
North Atlantic: text, 401–02
U. S., Australia, N. Z., 402–03
U. S., Philippines, 403
Versailles, 140, 330
Washington Conference, 330
See also World War II
Trent, Council of, 699
Trenton, N. J., 100, 263, 420
Triangle: Area, 427
Trieste, 654, 732
Trinidad, Colo., 491
Trinidad & Tobago, 537
Area & population, 515
Trinity Sunday, 453
Triode: Invention, 434
Triple Crown (racing), 831
Triplets: Number born, 111
Tripolitania, 619
Trojan War, 701
Tropic of Cancer, 497
Tropic of Capricorn, 497
Tropical year, 499
Troposphere, 32
Trotsky, Leon, 141, 144, 657
Trotting. *See* Harness racing
Troy: Destroyed, 701
Troy, N. Y., 100
Troy weight, 462
Trucial Coast, 504
Trucks: Freight, 723
Trujillo, Rafael L., 567
Truman, Harry S.:
Biography, 379
Assassination attempt, 340
Cabinet, 396
Election, 364
Family, 383
Minority President, 419
Nomination, 355
Point 4 program, 147
Removes MacArthur, 147
Steel industry seizure, 147
Truman Doctrine, 146
Trusteeships, 275
See also United Nations
Tsars: Russia, 207
Tube, radio: Invention, 434
Tuberculosis:
Bacillus: discovery, 435
Death rates, 117
Tucson, Ariz., 251
Tulsa, Okla., 100, 265, 295
Tun (meas.): Defined, 429
Tungsten:
Filament invention, 434
Imports, 731
Tunis, Tunisia, 583
Tunisia, 583
Area & population, 577
Turbojet: First flight, 471
Turkey:
General information, 654–56
Agriculture: rating, 707, 708
Aid bill: U. S., 334, 335
Currency: par value, 734
Diplomats: U. S., 340
Earthquakes, 692
Flood (1948), 692
International Bank, 734
Minerals: rating, 706
NATO, 150
Trade, 732, 733
Trade: rating, 709
United Nations, 743
World War I, 349
Turkeys: On farms, 726
Turntables: Phonograph, 299
Tuscaloosa, Ala., 251, 319
Tutankhamen: Tomb, 702
Tutuila, 273
Tweed Ring, 702
Tweeter: Defined, 162
Twelfth Amendment, 416
Twelfth Night, 451
Twentieth Amendment, 417–18
Twentieth Century Fund, 704
Twenty-first Amendment, 418
Twenty-second Amendment, 418
Twilight: Cause, 499
Twin Falls, Idaho, 255
Twins: Number born, 111
Tydings-McDuffie Act, 331
Tyler, John:
Biography, 372
Cabinet, 394
Family, 383
Typewriter: Invention, 435
Typhoid: Death rates, 117
Typhoons, 26
Famous, 693

U

UHF, 162
UNESCO, 747
Ubangi-Shari, 581
Area & population, 577
Uffizi Gallery, 684
Uganda, 524
Area & population, 515
Ukrainian S.S.R., 658
See also Union of S.S.R.
Ulster, 521
Ultrahigh frequency, 162
Underwood-Simmons Tariff, 329
Unemployment:
By year, 102, 719
Insurance, 740–41
Percentages, 102
Union City, N. J., 100
Union Labor party, 357
Union of South Africa. *See* South Africa
Union of Soviet Socialist Republics:
General information, 656–61
Agriculture: rating, 707, 708
Airlines: rating, 709
Armed forces: rating, 710
Atomic bomb, 147
Bases, 66–67
Birth rate, 709
Dimensions, 669
Diplomat: U. S., 340
East-West relations (1955), 16–17
Egyptian arms, 21
Five-year plan, 141
Germany: nonaggression pact, 143
Hydrogen bomb, 148
Industry: rating, 708, 709
Jewish physicians arrested, 147
Labor: purchasing power, 713
Lakes, 675
League of Nations, 144
Libraries, 683
Life expectancy, 124
Minerals: rating, 706, 707
Navy: rating, 710
Railways: rating, 709
Recognized by U. S., 142
Rulers of Russia, 207
United Nations, 743
Universities, 682
World War I, 349
World War II, 143–45, 348, 400
Union party, 357, 361
Unions: Leading, 721
See also Labor
Unitarians, 441
United Automobile Workers, 721
United Kingdom. *See* Great Britain
United Mine Workers, 721
Fined, 146
United Nations, 742–61
Actions and major cases, 742–43
Agencies, 746–47
Aggression: action against, 753–55
Algeria, 21
Atomic energy control, 146, 147, 742
Charter: text, 749–61
Children's Fund, 745
Costs, 748
Delegation heads, 748
Disarmament Commission, 744
Disputes: settlement, 753
Economic and Social Council, 744–45, 746, 756–57
Flag, 748
French walk-out, 21
General Assembly, 744, 750–51
General Assembly: 10th session, 21
Greece, 742
Headquarters, 745
India, 742
Indonesia, 742
International Court, 747, 759–60
Iran, 742
Israel, 742
Italian colonies, 742
Kashmir, 742
Korea, 743
Major cases and actions, 742–43
Members, 743

Membership, 743, 749
Membership procedure, 742–43
Military Staff Committee, 744
Netherlands, 742
Organs: principal, 744–45
Pakistan, 742
Palestine, 742
Presidents: General Assembly, 744
Principles, 749
Purposes, 749
Red Chinese membership rejected, 19
Secretariat, 744, 760
Secretaries-General, 744
Security Council, 744, 746, 752
Territories: non-self-governing, 757
Trusteeship Council, 745, 746, 759
Trusteeships: system, 757–59
Trusteeships: U. S., 275
U.S.S.R., 743
U. S.: Delegation to 10th Gen. Assem., 748
U. S.: Permanent mission, 748
United States:
Agencies: independent, 390–91, 392
Agriculture: rating, 707, 708
Airlines: rating, 708
Area (1790–1950), 90
Armed Services, 341–49
Armed Services: rating, 710
Bills & treaties, 329–38
Births, 108–12
Cabinet members (1789–1955), 393–96
Cities, 275–84
Congress: members, 384–88
Constitution, 407–18
Continental Congresses, 420–21
Currency: par value, 734
Deaths, 113–20, 710
Declaration of Independence, 404–06
Diplomats: to & from, 339–40
Economy: statistics, 705–34
Education, 127–33
Elections: Presidential, 356–66
Employment: rating, 709
Executive Departments, 389–90, 391–92
Flag, 422–24
Forest resources, 135
Geography, 134–37
Geography: map, 86
History, 322–28
Immigration, 95–96
Impeachments, 397
Industry: rating, 708
Life expectancy, 120–24
Maps, 82–86
Merchant fleet: rating, 709
Minerals: rating, 706, 707
Motor vehicles: rating, 709
Navy: rating, 710
National Park System, 314–16
Population, 90–102
Postal regulations, 350–53
Residents, 368–80
Railways: rating, 709
Religious groups, 437–41
Social Security, 738–41
SEATO, 150
Speakers of House, 398
States, 251–71
Supreme Court Justices, 397
Telephones: rating, 709
Territories & possessions, 100, 271–75
Time zones: map, 86
Trade: foreign, 731, 732–33
Trusteeships, 275
United Nations, 147, 748
Vital statistics, 90–137
World War I, 347
World War II, 347
For further details, *See* individual entries
United States (ship), 697
United States Bank, 323, 324
United States National Museum, 318
United States of Indonesia. *See* Indonesia
United Steelworkers, 721
Universal Postal Union, 747
Universalist Church, 441
Universities. *See* Colleges
University City, Mo., 261
Unleavened Bread, Feast of, 451
Uranium: Deposits, 707
Uranus (planet), 495, 498
Symbol, 496
Urban population, 92
Uruguay:
General information, 661–62
Agriculture: rating, 708
Currency: par value, 734
Diplomat: U. S., 340
Holiday: national, 690
Trade, 732, 733
United Nations, 743
Utah:
General information, 268–69
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: law, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Utica, N. Y., 100
Utrecht, Netherlands, 626

— V —

V.H.F., 162
V-J Day, 145
Vaccination: Discovery, 435
Vagrancy: Arrests, 125
Valences (chem.), 432
Valentine's Day, 451
Valley Forge, 266
Van Buren, Martin:
Biography, 371
Cabinet, 393
Election, 356
Family, 383
Vancouver, Br. Columbia, 532
Vanderpool Gallery, 318
Vargas, Getulio: Suicide, 512
Variety stores, 722, 724
Varnish. *See* Paint
Vatican City State:
General information, 662–63
Library, 683
Structures, 687
See also Roman Catholic Church
Vaudeville theater: First, 703
Veal: Farm prices, 725
Vegetables:
Consumption, 714
Exports & imports, 731
Income: marketing, 725
Prices: farm, 725
Venezuela:
General information, 663–64
Birth rate, 111
Currency: par value, 734
Death rate, 116
Diplomats: U. S., 340
Holiday: national, 690
Life expectancy, 124
Minerals: rating, 707
Trade, 732, 733
United Nations, 743
Venice, Italy, 686
Venus (planet), 492, 498
Symbol, 496
Verdun, Battle of, 702
Vermilion Range, 260
Vermont:
General information, 269
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: law, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Versailles, Palace of, 687

Versailles, Treaty of, 140, 330
Hitler defies, 142, 143
Senate rejects, 140
Very high frequency, 162
Vesuvius, Mt., 676, 692
Veterans:
Benefits, 332, 336, 349
Bonus bills, 330, 332
Education, 128, 349
Veterans' Administration, 391, 392
Veterans' Day, 452, 454
Veto power: Presidential, 338
Vice Presidents (U. S.):
Election: procedure, 416
List of, 381
Salary, 334, 338, 382
Term: end of, 418
Vichy government, 144
Vicksburg, Battle of, 698
Vicksburg, Miss., 261
Victoria, B. C., 491, 534
Victoria (isl.): Area, 671
Victoria, Lake, 675
Victoria and Albert Museum, 684
Victoria Falls, 672
Victorian era, 516
Video: Defined, 162
Vienna, Austria:
Congress of Vienna, 699
Library, 683
Longitude and latitude, 490
Museum, 685
Population, 506
Ring Theater fire, 693
Time of day, 490
Zoo, 686
Viêt-Nam, 585–86
Area & population, 577
Division, 19
Vieux Carre, 258
Virgin Islands (British), 536
Virgin Islands (U. S.):
General information, 274
Education: funds, 128
Executions: method, 126
National Convention delegates, 354
Virginia:
General information, 269–70
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Constitution: ratified, 407
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: law, 287
Museum of Fine Arts, 321
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
"Virginia Dynasty," 323
Virus: Crystallized: discovery, 435
Vitamins:
Discoveries, 435
Of foods, 129
Vocational schools, 129
Volcano Islands, 275
Volcanoes, 676–77
Eruptions, 692
Volga, 674
Volleyball, 808, 854, 859
Volstead Act, 330
Volume:
Formulas for, 427
Measures, 425
Voting:
Qualifications: by state, 367
Rights of citizens, 417
Woman suffrage, 702
See also Elections
Vulcanizing: Invention, 434

W

Wabash River, 137
Waco, Tex., 100
Wadsworth Atheneum, 321
Wages:
By year, 710
Controls, 146, 148
Industry, 717, 718
Legislation, 331, 332, 333, 335
Manufacturing, 717, 718
Minimum (1933), 331
Minimum (1938), 333
Minimum (1949), 147, 335
Minimum (1955), 338
Wagner-Connery Act, 332
Wake Island, 274
Waldorf-Astoria, 696
Wales:
Area & population, 516
Life expectancy, 124
See also Great Britain
Walker Cup, 781
Walking (sport), 845
Wall: China, 687, 699
Wallace, Henry A., 355, 381, 395
Wallace Collection, 684
Wallis Archipelago, 587
Walters Gallery, 321
War, U. S. Secretaries of, 393–96
War criminals, 145
War debts: Moratorium, 331
War of 1812, 702
Casualties, 347
Warm front: Defined, 39
Warm Springs, Ga., 255
Wars:
Casualties, 347, 348, 349
Outlawed, 141
See also individual wars
Wars of the Roses, 702
Warsaw, Poland, 637
Warwick, R. I., 267
Washington, George:
Biography, 368
Birthday (holiday), 451, 454
Cabinet, 393
Elections, 356
Family, 383
Hall of Fame, 468
Mt. Rushmore carving, 267
Washington, D. C. *See* District of Columbia
Washington (state):
General information, 270
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Mountain peaks, 134
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Shore line, 137
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Washington Conference (1945), 145
Washington Monument, 254
Washington Naval Conference (1922), 141, 330
Washington Park Futurity, 835, 857
Wassermann test, 435
Watches: Imports, 731
Water:
Boiling, freezing points, 428
Displacement, 435
Water area: U. S., 137
Water polo, 790, 853, 859
Water power:
Federal commission, 330
TVA, 331
Water skiing, 870
Waterbury, Conn., 100, 253
Waterfalls: Famous, 672
Waterloo, Battle of, 700
Waterloo, Iowa, 100, 257
Watertown, N. Y., 491
Watertown, S. Dak., 267
Waterways: Traffic, 723
Watkins committee, 148
Weather, 22–44
Climate of U. S. cities, 36, 42–44
Climatic changes, 38
Precipitation, 34–37
Severe storms, 24–30
Weather of 1955, 22–24
Weather folklore, 41–42
Weather maps, 38–40
What makes weather, 30–38
Webster, Daniel, 356, 393, 394, 468
Weeks, Feast of, 452
Weight lifting, 808, 823, 858, 869
Weights:
Chemical elements, 432–33
Defined, 426–30
Weimar Constitution, 140
Welding shops: Number, 720

Welfare state: Defined, 162
Welland Canal, 679
Welles, Orson: "Attack from Mars," 143
West Germany. *See* German Federal Republic
West Indies:
Discovery, 667
Map, 81
West North Central States:
Economy: statistics, 727
Population: marital status, 104
West Point, N. Y., 341
West South Central States:
Economy: statistics, 727
Population: marital status, 104
West Virginia:
General information, 270
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: motor-vehicle, 119
Deaths: infants, 115
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: Negroes, 131
Education: statistics, 127, 130
Elections: statistics, 359–66
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Western European Union:
Germany admitted, 148
Member nations, 150
Ratifications, 10, 11
Westminster Abbey, 687
Westphalia, Peace of, 701
Wetback: Defined, 162
Wheat:
Exports, 731
Flour: consumption, 714
Prices: farm, 725
Production: U. S., 726
Production: world, 708
Wheeler-Rayburn Act, 332
Wheeling, W. Va., 100, 270
Whig party (U. S.), 356–57
Whisky Insurrection, 702
White House, 398
White House Office, 389, 391
White slave traffic, 126
White Sulphur Spgs., W. Va., 270
White-Thaw case, 701
Whitney, Mt., 134
Whitney Museum, 317
Whitsunday, 452
Who Was Who, 240–50
Wholesale trade:
Employment, 719
Establishments, 715, 722
Hours worked, 718
Prices, 723
Wages, 718
Whooping cough: Death rates, 117
Who's Who, 218–39
Wichita, Kans.:
Area, 100
Longitude & latitude, 491
Magnetic declination, 491
Newspapers: leading, 295
Population, 100
Time of day, 491
Wichita Falls, Tex., 100
Widener Handicap, 835, 857
Widows & Widowers:
Deaths, 117
Number, 104
Wightman Cup, 782
Wilderness, Battle of, 698
Wilkes-Barre, Pa., 100
Willkie, Wendell, 355, 362
Wilmington, Del., 100, 253
Wilmington, N. C., 491
Wilson, Woodrow:
Biography, 377–78
Cabinet, 395
Elections, 358
Family, 383
14-point address, 140
Hall of Fame, 468
Minority President, 419
Nominations, 355
Wilson, Mt.: Observatory, 500
Wilson Cloud Chamber, 435
Wimbledon champions, 870
Wind Cave National Park, 315, 678
Winds (myth.), 202
Windsor, Duke of: Marriage, 143
Windward Islands, 537
Area & population, 515
Winnipeg, Manitoba, 491, 532, 534
Winston-Salem, N. C., 264
Area, 100
Newspaper: leading, 295
Population, 100
Winter (1956), 498
Wire: Measurement, 429
Wireless: Invention, 434
Wisconsin:
General information, 270–71
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Elections: statistics, 359–66
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 83
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Witch-hunt: Defined, 162
Witch trials (Salem), 702
Wives: Of Presidents, 383
Women:
Armed forces: U. S., 348
Arrests: number, 125
College graduates, 130
Death rate: by age & year, 116
Deaths, 116, 117, 121–22
First airline pilot, 471
First licensed pilot, 470
First to fly, 469
First transatlantic solo, 471
First U. S. air pilot, 470
Firsts, 702, 703
Life expectancy, 124
Marital status, 104
Marriage, 103, 108
Number, 93
Occupations, 101
Ratio to men, 91
Voting rights, 147
Woman suffrage, 271, 702
Workers, 102
Wonders: Seven of world, 668
Wood. *See* Lumber
Wood Memorial, 835, 857
Wood pulp: Imports, 731
Woofer: Defined, 163
Wool:
Imports, 731
Prices: farm, 725
Production: world, 708
Woolworth Building, 696
Wooly bear caterpillars, 41
Woonsocket, R. I., 100, 267
Worcester, Mass.:
General information, 284
Government, 286
Museum, 321
Newspaper: leading, 295
Population: growth, 100
Words:
Crossword puzzle guide, 181–204
New words & meanings, 151–63
Troublesome pronunciations, 163–74
Words frequently confused, 174–75
Words frequently misspelled, 175–78
Work. *See* Labor
Workers party, 359
World:
Air mileages, 292–93
Cities: largest, 691
Climate: extremes, 679–80
Dimensions, 669
Elevations, 669
Land areas, 669
Population, 92, 669
Population densities: high, 669
Radio sets: number, 299
Religions, 437
Round-the-world flights, 470, 471
Seven wonders, 668
See also Geography
World Calendar, 492
World Court, 141
World Health Organization, 747
World Meteorological Organization, 747

World Series, 764–70
1955 statistics, 867–69
World War I:
Casualties, 347, 349
Consumer prices, 712
Debts: moratorium, 331
Declaration: U. S., 329
Events, 702
Nations in combat, 150
Versailles Treaty, 330
World War II:
Casualties, 347, 348
Chronology, 143–45
Conferences, 399–401
Consumer prices, 712
Nations in combat, 150
Treaties: Japanese, 336, 613
Treaty: Bulgarian, 551
Treaty: Finnish, 574
Treaty: Hungarian, 598
Treaty: Italian, 610
Treaty: Rumanian, 644
Veterans: benefits, 349
War trials, 145
See also Conferences: individual countries
Wrestling, 791, 808, 853, 858, 860
Wyandotte Cave, 256
Wyoming:
General information, 271
Accidental death rates, 118
Agriculture: statistics, 726, 727
Altitudes, 135
Area: land, 96
Births: number, 109
Congress: members, 385, 388
Death rates, 118
Deaths: infants, 115
Deaths: motor-vehicle, 119
Deaths: number, 115
Divorces: statistics, 106, 107
Economy: statistics, 726, 727
Education: statistics, 127, 130
Executions: method, 126
Families: number, 113
Government, 285
Highest, lowest points, 135
Holidays, 454
Hospitals: number, 120
Map, 82
Marriages: statistics, 105
Motor vehicles: deaths caused by, 119
Motor vehicles: laws, 287
Newspapers: number, 296
Population: density, 96
Population: growth, 96
Population: marital status, 104
Time zone, 86
Unemployment: compensation, 741
Voting: qualifications, 367
Woman suffrage, 271, 702

— X —

X-rays: Discovery, 435

— Y —

YMCA, 704, 808
YWCA, 704
Yachting, 869
Yakima, Wash., 270, 491
Yalta Conference, 145, 399–400
Papers released, 10
Yangtze Kiang, 674
Yard (meas.): Defined, 425
Year: Sidereal & tropical, 499
Yellowstone National Park, 315
Geysers, 678–79
Waterfalls, 672
Yellowstone River, 137
Yemen:
General information, 664
United Nations, 743
Yerkes Observatory, 500
Yom Kippur, 452, 453
Yonkers, N. Y., 100, 264
York, Pa., 100, 420
Yorktown, Battle of, 698
Yosemite National Park, 315, 672
Young Men's Christian Association, 704
Young Plan, 141
Young Women's Christian Association, 704, 808
Youngstown, Ohio, 100, 295
Yugoslavia:
General information, 665–66
Armed forces: rating, 710
Birth rate, 710
Currency: par value, 734
Diplomats: U. S., 340
International Bank, 734
MSA: allotments, 734
Minerals: rating, 706
Trade, 732
Soviet visit (1955), 17
United Nations, 743
World War II, 144, 348
Yukon Territory, 534
Yuma, Ariz., 251

— Z —

Zambesi, 674
Zanzibar, 530
Area & population, 515
Zenger case, 699
Zeppelin:
First, 469
Invention, 435
Zero: Absolute, 428
Zeus: Statue at Olympia, 668
Zinc industry:
Imports, 731
Production, 707, 717
Zion National Park, 315
Zodiac: Signs, 496
Zoological gardens, 685–86
First, 703
Zoot suit: Defined, 163
Zoroastrians: Number, 437
Zurich, Switzerland, 651

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